The American Society of Pharmacognosy

The ASP Newsletter Volume 45 Issue 4

ARRA: ASP and Research in America

by Ms. Amy Keller and Dr. Georgia Perdue

As the United States government works to push the country out of the recent recession, the topic at the forefront of the research community's mind is the American Recovery and Reinvestment Act of 2009 (ARRA). Two ASP members, Dr. Guido Pauli, Associate Professor in the Department of Medicinal Chemistry and Pharmacognosy at University of Illinois, Chicago, and Dr. Amy Wright, Director of the Center for Marine Biomedical and Biotechnology Research at the Harbor Branch of Florida Atlantic University (FAU), received a Challenge Grant and Grand Opportunity Grant (GO), respectively, as part of the ARRA funding.

President Obama signed the act into law on February 17, 2009, and in the words of the National Institutes of Health (NIH) website, "It is an unprecedented effort to jumpstart our economy, create or save millions of jobs, and put a down payment on addressing long-neglected challenges so our country can thrive in the 21st century. The Act is an extraordinary response to a crisis unlike any since the Great Depression, and includes measures to modernize our nation's

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The submersible used in Dr. Wright's research.

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The Next 50 Years of Our Society

by Ms. Amy Keller

At ASP's 50th Anniversary Meeting in Hawai'i this past summer, ASP celebrated a half-century of impacting and defining natural product research. The Society has many accomplishments to celebrate, and embodies a rich history from its collective membership of worldwide scientists. As our Society looks forward to another 50 years, how will the ASP influence natural product science in the future?

To explore this question, we asked ASP members what they view as the greatest achievements of the Society in the last 50 years, and what they think the Society's impact will be in the next 50 years. ASP President Ted Molinski, and ASP members Drs. Gordon Cragg, Douglas Kinghorn, Norman Farnsworth, Georgia Perdue, Koji Nakanishi, and Roy Okuda share their thoughts with the *Newsletter*.

ASP President Ted Molinski

I think the greatest achievement is the founding of *Lloydia (Journal of Natural Products)*, and its evolution to the modern flagship of natural products research. Equally important is the ability of the ASP to unify many fields of research such as chemistry, pharmacology, botany, chemical ecology, among others, around a common cause: nature's exquisitely beautiful secondary metabolites.

I imagine the impact of the Society over the next 50 years will be to attract and shape the careers of young, talented scientists who will harness the biosynthetic potential living world for the discovery of the next generation of therapeutic agents. It is not too fanciful to imagine that from this may come great things, such as a cure for AIDS or the end of the scourge of malaria.

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Editor's Corner

In this issue of the *Newsletter*, we look at the impact of the economic stimulus package on the field of pharmacognosy. We are aware of two active ASP members, Drs. Guido Pauli and Amy Wright, who have received ARRA funding. Both are involved in cutting-edge research that was funded from stimulus funds. *Newsletter* writers, Ms. Amy Keller and Dr. Georgia Perdue, nicely walk us through the stimulus funding issues at NIH, and the projects of Drs. Pauli and Wright. If other ASP members have received significant stimulus funding, we would love to hear from you.

As the 50th Anniversary year of the ASP draws to a close, we also take time to look back at the Society's accomplishments in the past half decade, and think about how the Society may impact science in the next 50 years. The *Newsletter* asked a number of active ASP members to tell us what they think about these issues, and their comments are included as our second lead article. It is heartening to see how important the Society, and the *Journal of Natural Products*, has been to many members.

We also turn our attention to the 51st Annual Meeting in Tampa, Florida. Dr. Todd Daviau's article about the plans for Tampa includes a strong list of invited speakers. As I write about this meeting, the temperature in New York is 26° F, with winds that make if feel like 17° F. It feels like a great time to book my ticket to Tampa!

We welcome the *Newsletter's* newest columnist, Ms. Anna Heran, who will write the regular feature "From the Archives." Ms. Heran is the archivist at the Lloyd Library, the official depository for the ASP archives. The Lloyd has a long association with the ASP, since the *Journal of Natural Products* (previously known as *Lloydia*) was published in association with them. It is great having Ms. Heran involved in the Society. She and Lloyd Library Director, Ms. Maggie Heran, have been attending ASP meetings for the last several years, and providing information about the Lloyd. Now Ms. Heran will write about material from the ASP Archives at the Lloyd Library that may be of interest to the membership. Also, she asks for any material that ASP members may have that is appropriate to donate to the ASP Archives. Thanks, Anna, for your help, and I look forward to working with you.

Founding member of the ASP, Dr. Norman Farnsworth, will be honored at a symposium entitled, "Developments in Botanical Dietary Supplement Research from 1994 to Today," on March 23, 2010. Information on this event is also included in this *Newsletter*.

Other regular columns include Dr. Georgia Perdue's "Brief News from Washington." Our regular columns, "Meet a New ASP Member" and "Behind the Scenes in Pharmacognosy" are on vacation this issue, but will return in March. If any ASP member has an interest in working on "Behind the Scenes in Pharmacognosy", in which we highlight the recent published research article of a current ASP member, please let me know.

I appreciate all the assistance from many ASP members in 2009, and I look forward to working with many more members in 2010 to continue to deliver information about ASP in a timely and informative fashion. I hope everyone has a great holiday!

Employment Service

The Society offers a placement service to aid our members in seeking positions or employees. This service is available only to ASP members and is free to both the applicant and the employer. For more information see the services website.

www.pharmacognosy.us/?page_id=163

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infrastructure, enhance energy independence, expand educational opportunities, preserve and improve affordable health care, provide tax relief, and protect those in greatest need."

The ARRA infused the NIH with $10.4 billion that must be spent by the end of 2010. Of this, $7.4 billion went to the institutes and centers for research and $800 million to the Office of the Director, which includes $200 million for Challenge Grants. These grants are intended to support new research in areas that address specific challenges in biomedical and behavioral research and which would benefit greatly from this two-year infusion of funds.

According to ASP President Ted Molinski, "The research community in natural products has struggled with historically low rates of success in securing funding from Federal agencies, however a ray of hope was provided by the ARRA Act of 2009. The pump was primed at the National Institutes of Health though a large infusion of additional funds in 2009-2010 to extramural grantees through Challenge, Competitive Revisions and other mechanisms. No doubt, this will have a positive short-term impact, and we are all interested in seeing long-term, sustainable changes to the funding structure for federal granting schemes, the lifeblood that feeds much of the natural products research in the United States of America.

The ARRA's mandate to NIH is, "fund the best and newest science that will make the difference for people as a result of the research," said then acting NIH director Dr. Raynard Kington, who in June also told his Advisory Committee "we are confident we can spend the money in two years. The public will expect to get something for the 10 billion. We are allowing the institutes and centers to focus on their signature themes for research."

One of the two recipients named above, Dr. Pauli's broad goal is to implement spectrometry, such as quantitative forms of spectroscopy using NMR and MS methods into the analytical workflow of dietary supplements and related reference materials. Dr. Pauli notes, "We are performing a cross-evaluation of the two techniques, NMR and MS, which are widely considered the most powerful in phytochemistry, but are completely different in mechanism. In lay terms, NMR and MS paint very different pictures of complex materials such as botanicals, and our goal is to systematically explore their complimentary nature."

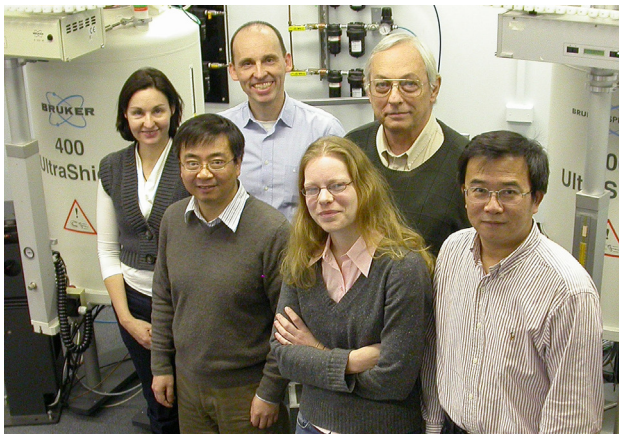
On a different track of natural product research, Dr. Wright is using her grant to create a unique library of marine natural products. She says, "the Harbor Branch Oceanographic Institute (HBOI), has been engaged over the past five years in the production of such a library as part of a National Cooperative Drug Discovery Project led by Dr. Phil Crews of University of California at Santa Cruz and has successfully created a library from approximately 150 organisms. Screening of the existing chemical library has allowed for the rapid discovery of many new structures, and with the repository of over 14,000 frozen marine specimens and 19,000 marine microbial isolates, this could be used in generation of an expanded Marine Natural Products Library."

When asked about the economic impact of the research, Dr. Pauli told the *Newsletter* that it plays a major role in retaining several research faculty and postdocs, during tough economic times and declining federal funding lines. "One important aspect is that it enables us to purchase a hybrid LC-MS/MS with UHPLC front-end. This is clearly an economic stimulus, and in our case directly affects a United States-based manufacturer of analytical equipment."

With the GO grant, Dr. Wright and her team aim to expand the diversity of the library by adding automation to the process and hiring both graduates and students to conduct chemical fractionation on 750-1250 organisms found in the HBOI Frozen Organism Repository and 250-350 organisms from the Marine Microbial Culture Collection.

Dr. Wright notes that the project will meet the goals of the Recovery Act through increasing United States research capabilities and creating a new resource for Drug Discovery and Life Sciences Research. "It will create new jobs and training opportunities for students, recent graduates and experienced research assistants. It will stimulate the economy through the purchase of scientific equipment such as Combiflash Companion, a Waters Autopurification system, and HPLC columns from United States manufacturers, providing a long term enhancement to the laboratory infrastructure of (FAU)." Dr. Wright also notes that she is hiring a new postdoc and a few additional technicians, and retaining the jobs of three research assistants.

According to Dr. Wright, "we will also be hiring some students to work on the project each summer. This then creates jobs, a major goal of the GO." In regards to keeping up with the reporting requirements, Dr. Wright tells us that, "I have had projects with stringent reporting requirements before. The most difficult



Dr. Pauli's Team: Dr. Birgit Jaki, Dr. Shao-Nong Chen, Dr. Guido Pauli, Dr. Tanja Goedecke, Dr. David Lankin, Dr. Marc Wang.

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The Next 50 Years of Our Society

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Dr. Gordon Cragg

Before listing ASP's greatest achievements of the last 50 years, I think all ASP members should echo the comments of members who attended the Second Annual Meeting of the Society held in Houston in 1961, in commending the then President and Vice President, Varro Tyler and Norman Farnsworth, for doing " *a remarkable job in organizing and leading the Society in its formation and development*." We owe much to these great colleagues for establishing the vibrant and active Society which we all serve and treasure today.

Among the most notable achievements of the ASP in the past 50 years, I would list: 1) the development of the Society into a truly international society with close to 40% of the membership being from outside the United States, together with the organization of joint meetings with our sister European societies, starting with the Deutsche Gesellschaft für Arzneimittel-Forschung (GA) in 1970, and expanding to the Phytochemical Society of Europe, and Association Francaise des Enseignants de Matière Médicale in 1980; 2) the evolution of the Society from one initially devoted to terrestrial plant-based research to one incorporating marine and microbial natural products, and more recently the application of genomics and metagenomics to expanding the potential for the discovery of novel bioactive molecules; 3) the development of the *Journal of Natural Products (JNP)*, under the outstanding leadership of Dr. Douglas Kinghorn as Editor-in-Chief since 1994, into the leading journal for publication of natural products research; 4) the development of a set of Guidelines for ASP members to follow in their 'fair and equitable' collaboration with members of the scientific communities and government agencies of biodiversity-rich source countries (*J. Nat. Prod.* **1995**, *58*, 1325-1357), and 5) the sponsorship of interim ASP meetings dealing with the importance of quality control in the preparation of botanical products, culminating in annual Oxford International Conferences on the Science of Botanicals (ICSB) organized by Dr. Iklas Khan in Oxford, Mississippi.

Dr. Gordon Cragg

In terms of the future impact in the next 50 years, I foresee the ASP collaborating with other natural product professional societies in promoting greater awareness among policy makers and communities of nations worldwide of the importance of nature as a primary source of new medicinals, both conventional and complementary, and agrochemicals, and the urgent need to conserve and sustainably develop important natural resources. On the research side, ASP and ASP members will continue to play leadership roles in the discovery of novel bioactive agents from natural sources, and particularly in the application genomics and metagenomics in expanding the discovery of novel bioactive molecules from microbes. The importance of *JNP* as a prime channel for the publication of ground-breaking research will continue to grow.

Dr. A. Douglas Kinghorn

In my opinion, one of the greatest achievements by the early leaders of the ASP was in affiliating with a relevant scientific journal with such rapidity after the foundation of the Society in 1959. The first President and Vice President, Tip Tyler and Norm Farnsworth, handled the relevant negotiations with the Lloyd Library and Museum, Cincinnati, Ohio, in order to jointly publish the existing journal *Lloydia* with effect from January, 1961.

Dr. Art Schwarting became Editor in Chief of this publication at this same time, and very soon thereafter changed the research focus of this originally taxonomic journal to one with more of a phytochemical theme. The next two Editors also made significant changes to the journal, with Dr. Jack Beal overseeing a far-reaching name change to the *Journal of Natural Products*, and Dr. Jim Robbers supervising a change from a bimonthly to a monthly publication, as it still remains.

Three ASP Presidents, Les Mitscher, John Cassady, and Alice Clark, along with ASP Treasurer David Slatkin and others, were involved in the lengthy negotiations leading up to co-publication of the *Journal of Natural Products* with the American Chemical Society, which began formally in 1996. All of these efforts have led to the evolution of the prestigious leading natural products journal we have today, in which a significant proportion of the structures of new secondary metabolites from terrestrial and marine organisms from around the world are published. Many of these new compounds have biological activities of drug and agrochemical relevance, so the overall interest in the content of the *Journal of Natural Products* by members of the biomedical and chemical communities at large has increased greatly as our publication has matured.

Dr. A. Douglas Kinghorn

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Dr. Norman Farnsworth

The greatest achievement of the ASP was the acquisition and development of *Lloydia* (*Journal of Natural Products)*. ASP will impact the next 50 years by keeping natural products and pharmacognosy at the forefront of research.

Dr. Georgia Perdue

From its inception, the American Society of Pharmacognosy was the glue that kept a small number of pharmacognosists together. The early "pioneers" like Drs. Norman Farnsworth, Arthur Schwarting, and Varro Tyler, to name just a very few, drew high caliber students, including more women, who went on to accomplish great things and break new ground. They, in turn, drew more students into the field.

Dr. Georgia Perdue

The society never lost its identity and held fast to calls from succeeding generations to change the name to something more modern. This has been extremely important because I believe it has been a factor in attracting young people. In my experience with my newsletter, *Washington Insight*, I brought an understanding of what pharmacognosy is to the attention of lawmakers and their staff on Capitol Hill. In two hearings, Congressmen used the word "pharmacognosy" which went into the Congressional Record. I must also credit fellow pharmacognosist Dr. Jim McChesney who testified at one of those hearings.

From the perspective of Congressional staff it was important that "pharmacognosy," not "natural products," be used, because in their minds, it translated into complementary and alternative medicine which had and still has a negative connotation in the minds of many on the Hill.

As long as members continue the values of the Society's founders, ASP will flourish. If younger members are trained in areas that were once considered archane, they will make enormous contributions to the burgeoning field of complementary and alternative medicine which greatly needs people with those skills.

Dr. Koji Nakanishi

I joined Columbia University in 1969 and became a natural product chemist when I joined the group of the late Professor Y. Hirata in 1954, and have been involved in natural products since.

Compared to Germany, Japan, and other European and Asian countries, it appears that the United States' emphasis in the chemical area had been in synthesis, physical, and organic, than in pharmaceutical sciences. This is changing now.

Dr. Koji Nakanishi

The major achievements of ASP in recent years have been increasing the awareness of natural products, including pharmacy, and pharmacognosy, in the United States general chemistry community, and increasing the achievements of natural products and pharmaceutical sciences in the United States to science circles in Europe, Asia and other regions.

After 50 years and the 50th Anniversary Meeting in Hawai'i, 2009, the ASP impact, domestic as well as international, will continue to increase from now on.

In July, 2009, I attended the Natural Products Association Meeting in Las Vegas, Nevada, and was surprised to see there were over 400 herbal booths!

Dr. Roy Okuda

Since joining the ASP in 1985, my perception is that the Society has become much broader in scope from its roots in plant natural products. A look at recent meeting abstracts illustrates the wide range of fields that are attracted to our gatherings, which in turn brings new members to our organization. The *Journal of Natural Products* is the main vehicle by which the scientific world is connected to the ASP. I think few would say that the decision to enter into a joint publication agreement with the ACS has been anything but a resounding success. Finally, the fostering of the careers of our younger members through mentoring and recognition has added to the stature of the Society.

For the future, the field of natural products / pharmacognosy needs an entity to serve as a beacon to provide direction to any group with an interest in the field – including industry, government agencies, the public, and media. The

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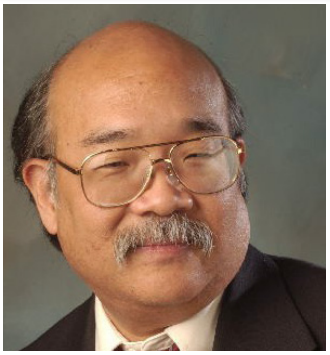

Dr. Roy Okuda

field has suffered significant retrenchment in recent years, despite important discoveries and advances. The Society could play a pivotal role as a source of information, and to proactively promote the field. Many individuals within the ASP already do this, but the collective voice of a professional organization will have a greater impact.

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thing is that because you do it based upon what the government has actually reimbursed rather than what has been spent, and billing is always at least a month after the expense, you have to spend a bit more time reconciling the numbers. I think it is hard to get people recruited into the jobs. We are still working on that."

Dr. Pauli mentions that the unusual character of the award comes with a special requirement of relatively complex and frequent reporting. When asked how he finds the complicated reporting on job retention and employment, Dr. Pauli tells us that, "as always, more opportunity comes with added responsibility. The reporting requirements for ARRA awards are certainly greater compared to other funding. I clearly see the need to account for measurable effects of this unique economic stimulus program. At the same time, this presents a great opportunity for research administrations to streamline their reporting processes and help the researchers to be creative and productive in the spirit of ARRA."

Brian Cousin

The natural products research team at the Harbor Branch Oceanographic Institute of Florida Atlantic University.

Dr. Pauli feels "absolutely honored" to be a Challenge Grant recipient. "It goes one step beyond receiving a major NIH award, which is an honor. It was a very competitive field of applications. Innovation played a major role in the assessment of applications. The fact that the project obviously was broadly perceived as being innovative, and received such strong support by our peers, adds much to the honor of the award."

Dr. Pauli and his team also feel highly motivated and see this as a great chance to create something new by transforming the insights of their recent research into new analytical methodology.

Dr. Wright is also thrilled to be a recipient, saying, "We are extremely happy and thank all of the people who reviewed the proposal positively and were advocates for it during the review and selection process. We have a very large collection of frozen specimens and a large collection of microbes, but we have not had the resources to work up the majority of them into a larger library of pre-enriched fractions and pure compounds. Based upon our analysis of crude extracts we are certain that the collection contains many new compounds, which will have new bioactivities; now we can actually go after them. It is something I have wanted to do for a long time and have tried to get funding in different ways. Now it actually is happening."

We wish Drs. Pauli and Wright success as they participate in the strengthening of our nation's economy through their respective grant research! If you or other ASP members have benefitted from the ARRA, please notify the *Newsletter*, as we look forward to sharing ASP's role in our nation's historical time.

The Anne S. Chatham Fellowship

by Dr. Wendy Applequist

The Garden Club of America is pleased to announce a fellowship open to Ph.D. candidates and recent Ph.D. graduates to promote the study of medicinal botany. The fellowship was established to protect and preserve knowledge about the medicinal use of plants, and thus prevent the disappearance of plants with therapeutic potential. Providing this research opportunity for botanists can, in turn, assist medical science in its ability to protect lives, alleviate suffering, and develop new medicines. The fellowship was created and endowed by a generous contribution from Ms. Anne S. Chatham, a member of the Garden Club of America's Scholarship Committee and a member of the Jupiter Island Garden Club.

The Anne S. Chatham Fellowship in Medicinal Botany will provide one grant award of $4,000 annually. An important aspect of the award is that it is intended to enable a student to pursue an avenue of research that might otherwise prove closed. Accordingly, the funds may be used to cover direct costs associated with travel, field studies, or laboratory research. However, fellowship funds may not be used to cover indirect costs or overhead and should not be used to pay for lab space or supplies normally provided by universities.

Eligible candidates include students currently enrolled in Ph.D. programs at recognized universities and recent graduates who have received their degrees in the last five years. The fellowship recipient will be selected by a panel of botanists appointed by the Missouri Botanical Garden and is subject to approval by the Garden Club of America Scholarship Committee.

How To Apply

Please submit the following a brief application letter, an abstract of 200 words or less, and a 1-2 page research proposal, set in 12-point type. Proposals should be detailed and will be treated as confidential; proposals longer than 1-2 pages will be considered ineligible. Please also include a one page budget, a current curriculum vitae, a letter from major advisor certifying graduate enrollment for graduate students, and copies of appropriate permits for field work or any studies including animals, research clearances, and permission from governmental agencies if applicable.

Proposals should be received by January 15, 2010. Mail applications to:

Dr. Wendy Applequist
Missouri Botanical Garden
Dept. 43
P.O. Box 299
St. Louis, MO 63166-0299

Additional information may be obtained by contacting Mr. Bruce Ponman at the address above, by phone (314-577-9565), email (bruce.ponman@mobot.org), or online at www.wlbcenter.org/chatham.htm.

ASP 50th Anniversary Medallions Available

by Ms. Amy Keller

Approximately 600 50th Anniversary Commemorative Medallions will be available for the last time at the 51st ASP Meeting in Tampa, Florida, July 10 – 14, 2010. They are free to members who have not received one yet.

Colorful New ASP Website Updated!

by Mr. Jeremy Beau

I want to thank everyone for choosing inverted, Inc. to take the ASP Website to the next level. We have successfully migrated the website to the servers at inverted, Inc. They have more capabilities so we took advantage and implemented many new features.

We monitored the site's Web statistics and have restructured it to make it easier and more efficient for viewers. Also, some pages were grouped together or streamlined to allow viewers to find the content more quickly.

In addition, we have created an ASP Facebook fan page, a Twitter account, and updated the existing LinkedIn group. If you are a member of one of these groups, please look us up at the links below and get notified of updates as soon as they happen. If you are not a member, this may be the time to join, as the new era of the Web is on social networks. Twitter provides members with quick updates, but Linkedin and Facebook go deeper and open the forum to members to discuss topics, ask questions and share important discoveries. Please start using this tool and you will see the rewards when we come together as a community.

ASP President Tad Molinski mentions, "Like all professional scientific societies, the ASP is primarily about people with common scientific interests. As promised, we've revamped the ASP website, including new web features that capitalize on social networking. The widespread popularity of social networks such as Facebook, LinkedIn and Twitter will allow ASP members to instantly share ideas, opinions, data on a variety of topics. Help yourselves! Pick your topic, login, start a conversation. It's all about being connected through your ASP."

Finally, as a thank you to the Society for being our client twice we upgraded the design to match the new capabilities of inverted, Inc.'s servers. The design makes the content easier to read, and looks cleaner and more professional.

Please visit the ASP website at the new web address: pharmacognosy.us. The old address phcog.org will still direct you to the new site for a while longer, but the new domain is easier to remember and a little more descriptive of our Society.

Inverted™
www.inverted.com

ASP Website: www.pharmacognosy.us
LinkedIn: www.linkedin.com/groups?gid=122521
Twitter: http://twitter.com/pharmacognosy
Facebook:www.facebook.com/pages/The-American-Society-of-Pharmacognosy/152418896470

UIC Symposium: Dr. Farnsworth Honored

by Ms. Amy Keller

Dr. Norman Farnsworth

The University of Illinois at Chicago's (UIC) National Institutes of Health (NIH) Center for Botanical Dietary Supplements Research will host a symposium on Tuesday, March 23, 2010. The symposium entitled, "Developments in Botanical Dietary Supplement research from 1994 to Today," and co-funded by the NIH Office of Dietary Supplements will address the advances made in botanical and dietary supplements research and regulation since the enactment of the Dietary Supplement Health and Education Act in 1994.

In addition, there will be celebration on the evening of March 23, 2010, to honor the 80th birthday of Botanical Center Director and founding member of the ASP, Dr. Norman Farnsworth.

Please visit UIC's website at www.uic.edu/pharmacy/about_the_college/news_and_events/events/botanicalsymposium2010.php for registration information and a complete schedule of events.

51st Annual Meeting in Tampa, Florida, 2010

by Dr. Todd Daviau

I would like to invite you to attend the 2010 joint Annual Meeting of the American Society of Pharmacognosy and the Phytochemical Society of North America from July 10 - 14, 2010, at the TradeWinds Island Grand Resort and Spa on Saint Petersburg Beach, Florida.

As is customary, the meeting program will begin Saturday evening, July 10, with the welcoming reception. The scientific program will begin in earnest on Sunday morning, July 11, and will consist of Award presentations and lectures from both society's award winners. Thus far, we have 15 confirmed invited speakers in eight symposia (Natural Products in Agriculture, Biodiversity, Metabolism and Metabalomics, Drug Discovery- Problematic Diseases, Issues and Botanicals, Natural Product Ecological Roles and Tritrophic Interactions, Bioassays and Targets, and Metabolic Engineering and Biotechnology). The topics and themes of these symposia represent the diversity of research conducted by both ASP and PSNA members.

Confirmed speakers include Drs. Pam Marrone of Marrone BioInnovations, Sharon L. Doty University of Washington, Susan McCormick, USDA/ARS, Jurgen Rohr, University of Kentucky, College of Pharmacy, Dennis Kyle, University of South Florida, College of Public Health, Gunda Georg, University of Minnesota, Masonic Cancer Center, Scott Franzblau, University of Illinois at Chicago, Department of Medicinal Chemistry and Pharmacognosy, Diane Birt, Iowa State University, College of Human Sciences/Agriculture and Life Sciences, De-an Guo, Shanghai Research Institute, Jurgen Gross, Julius Kuhn Institute; Susan Mooberry, University of Texas Health Science Center, Pharmacology, Hendrik Luesch, University of Florida, Department of Chemistry; Anne Osborne, John Innis Center, United Kingdom; Eve Wurtele, Iowa State University, Wendy Kelly, Georgia Tech University, Chemistry, and Eric Schmidt, University of Utah, Molecular Biology.

In addition, we have confirmed at least one short course for Saturday afternoon entitled, "Development and Validation of Analytical Methods for Dietary Supplements."

We encourage you to explore the meeting website, www.asp2010.com, which contains all the information you need to make your trip to the 2010 annual meeting a success. Hotel registration, if not open now, will be in a matter of days. Since July is prime tourist season in the Tampa/St Petersburg/Clearwater area, please reserve your hotel room soon. Meeting registration will also open in the coming weeks.

Please save the dates July 10 – 14, 2010, so you don't miss a single day of the meeting. See you in St. Petersburg!

Conference Calendar

The *Newsletter* is pleased to announce the following upcoming conferences and meetings. The events portrayed here reflect what listings and notices the *Newsletter* has specifically received. For a more extensive calendar, please visit the ASP website at www.phcog.org. If you have a conference or event you would like mentioned, please send us relevant information, including any graphics or appropriate fliers, at asp.newsletter@lehman.cuny.edu.

Developments in Botanical Dietary Supplement Research from 1994 to Today

Chicago, Illinois
March 23, 2010

www.uic.edu/pharmacy/about_the_college/news_and_events/events/botanicalsymposium2010.php

Banff Conference on Plant Metabolism 2010

Banff Centre, Banff, Alberta, Canada
June 24-28, 2010

www.ucalgary.ca/plantmetabolism2010

6th Conference on Medicinal and Aromatic Plants of Southeast European Countries

Antalya, Turkey
April 18-22, 2010

www.6thcmapseec.org

51st Annual Meeting of American Society of Pharmacognosy

Trade Winds Island Resort, St. Petersburg Beach, Florida
July 10-14, 2010

www.phcog.org/FutureASP.html

Society of Economic Botany 51st Annual Meeting

Xalapa, Veracruz, Mexico
June 6 - 10, 2010

https://payments.botany.org/seb2010/login.php?next=registration

New Members of ASP 2009

ASP would like to welcome new members. The Society's main objectives are to provide the opportunity for association among the workers in pharmacognosy and related sciences, to provide opportunities for presentation of research achievements, and to promote the publication of meritorious research. New members include 60 domestic full members, 28 international full members, and 52 associate members. We look forward to meeting you and learning more about you and your work.

Full Members

Dr. Vijender Reddy Adelli
University, Mississippi

Dr. Jennifer R. Anthony
University of Pennsylvania
Philadelphia, Pennsylvania

Professor Amani S. Awaad
King Saud University
Riyadah, Saudi Arabia

Dr. Cedric B. Baker
Mercer University
Atlanta, Georgia

Dr. Carole A. Bewley
Bethesda, Maryland

Dr. Peggy A. Biser
Frostburg State University
Accident, Maryland

Dr. Sean F. Brady
Rockefeller University
New York, New York

Joanna E. Burdette
University of Illinois at Chicago
Chicago, Illinois

Dr. Laura M. Bystrom
University of Massachusetts, Dartmouth
South Dartmouth, Massachusetts

Mr. Shao-Qing Cai
Beijing, China

Dr. Angela I. Calderon
Auburn University
Auburn, Alabama

Dr. Frank J. Caligiuri
Columbia, Missouri

Mr. Michael Chan
British Columbia Institute of Technology
Burnaby, British Columbia, Canada

Dr. Sarot Cheenpracha
Hilo, Hawai'i

Dr. Hyun Jin Choi
Gwangju, South Korea

Dr. Graeme Richard Corbin
St. Michael, Barbados

Dr. Sunita Dalal
Kurukshetra, Haryana, India

Dr. Keyvan Dastmalchi
Bronx, New York

Dr. Carla L. Delporte
University de Chile
Santiago, Chile

Dr. Stephen T. Deyrup
Ithaca, New York
Boyce Thompson Institute for Plant Research

Dr. Yuanqing Ding
Oxford, Mississippi

Dr. Pieter Dorrestein
University of California, San Diego
La Jolla, California

Mr. Jeff Dorsett
Henderson, Nevada

Dr. Aaron T. Dossey
University of Florida
Gainesville, Florida

Mr. Dennis Drehkoff
Chicago, Illinois

Dr. Abir El-Alfy
University of Mississippi
University, Mississippi

Dr. Patricia M. Flatt
Western Oregon University
Corvallis, Oregon

Dr. Javier Gracia Fernandez
Nanaimo, British Columbia, Canada

Dr. Edmund Graziani
Pearl River, New York

Dr. Stephen M. Greenberg
Global Technology/Lipo Chemicals, Inc.
Pateson, New Jersey

Dr. Veronique Guillemard
Institut de recherche
Noumea, New Caledonia

Dr. Sang Keun Ha
Yongin, South Korea

Dr. Ah-Reum Han
Columbus, Ohio

Janine, M. Harvey
ESP, Inc.
Sioux Falls, South Dakota

Dr. Min He
Pearl River, New York

Ms. Anna K. Heran
Lloyd Library and Museum
Cincinnati, Ohio

Dr. Marie Hetherington
Boise, Idaho

Dr. Siu-Po Ip
Hong Kong, China

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New Members of ASP 2009

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Dr. G. K. Jayaprakasha
Texas A&M University
College Station, Texas

Dr. Mohammad Khasawneh
Al-Ain, United Arab Emirates

Dr. Eun Kyung Kim
RTI International
Research Triangle Park, North Carolina

Dr. So Ra Kim
Seoul National University of Technology
Seoul, South Korea

Dr. Sun Yeou Kim
Yongin, South Korea

Mr. Paul Klausmeyer
SAIC-Frederick
Frederick, Maryland

Dr. Michael M. Koganov
Ossining, New York

Dr. Nzi A. Konan
Montreal, Quebec, Canada

Mr. Jon Kwantes
Henderson, Nevada

Dr. Joann M. Lau
Bellamine University
Louisville, Kentucky

Mr. Aaron S. Leff
Lineage Energeics, Inc.
Fairlawn, Ohio

Ms. Margaret Leighton
Wyeth
Pearl River, New York

Dr. Shwu-Jiuan Lin
Taipei Medical University
Taipei, Taiwan

Dr. Fulgentius Nelson Lugemwa
Penn State
York, Pennsylvania

Dr. Doulgas MacKay
Council for Responsible Nutrition
Washington, D.C.

Dr. Glenroy Dean Martin
University of West Florida
Pensacola, Florida

Dr. Charles A. Mesko
Millersport, Ohio

Professor Sylvie Michel
Universite Paris Descartes
Paris, France

Dr. Byung Sun Min
Gyeongsan, Korea

Ms. Hazrah Moothoo
British Columbia Institute of Technology
Burnaby, British Columbia, Canada

Dr. Timothy J. Motley
Old Dominion University
Norfolk, Virginia

Dr. Bamidele Joseph Ojo
Oluyemisi Enterprises Inc.
Kansas City, Missouri

Dr. Chris Okunji
Brevard, North Carolina

Suzanna Owens
Arlington, Tennessee

Dr. Bhairab Dutt Pandey
New Brunswick, New Jersey

Dr. Hyun Park
Iksan, South Korea

Dr. Srinivas Patnala
Rhodes University
Grahamstown, Other Territories, South Africa

Mrs. Mimi Faith Pezzuto
University of Hawai'i, Hilo
Hilo, Hawai'i

Ted K. Raab
Stanford University
Stanford, California

Dr. Ranjala, Ratnayake
National Institutes of Health
Frederick, Maryland

Dr. Yulin Ren
Ohio State University
Upper Arlington, Ohio

Dr. Maria Florencia Rodriquez Brasco
Institue for Tuberculosis Research, UIC
Oak Park, Illinois

Professor Wenche N. A. Rolfsen
Uppsala University
Uppsala, Sweden

Dr. Gregory P. Roth
Orlando, Florida

Mr. Mohammed Nawzad Sabir
Sulaimaniyah, Iraq

Dr. Shengmin Sang
North Carolina Central University
Concord, North Carolina

Ms. Zainab U. Shariff
Abuja, Nigeria

Ms. Sheela Sankarapandian
Chennai, Other Territories, India

Ms. Qi Shen
Chicago, Illinois

Mr. Mark S. Shon
SP Industries
New Paltz, New York

Dr. Ivana B. Suffredini
Paulista University
Sao Paulo, Brazil

Mr. Joseph A. Sundstrom
Thorne Research Inc.
Sagle, Idaho

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New Members of ASP 2009

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Ms. Karen Lynne Tenney
Santa Cruz, California

Professor Richard B. van Breemen
University Illinois
Chicago, Illinois

Mrs. Jacquelyn R. Villinski
Kennebunk, Maine

Dr. Zhongliang Wan
Florida A&M University
Tallahassee, Florida

Dr. Sno White-Benson
Clinical Pharmacis
Humansvill, Missouri

Dr. B. J. Wilson
Grahamstown, South Africa

Dr. Muhammad Zahid
Omaha, Nebraska

Ms. Nilar Zhang
Nanyang Polytechnic
Singapore, Singapore

Associate Members

Dr. Hamid-Reza Adhami
Vienna, Austria

Mr. Waleed A. Alsulmy
Bradford, United Kingdom

Ms. Laura Ashlock
Anchorage, Alaska

Dr. Jasminkumar H. Bavarva
Louisiana State University Health Sciences Center
Metairie, Louisiana

Mr. Jeremy Beau
Clearwater, Florida

Talyor Choi
Skokie, Illinois

Mr. Sandipan Datta
University of Mississippi
University, Mississippi

Lisa M. Del Valle-Mojica
Carolina, Puerto Rico

Mr. Mohamed S. Donia
Salt Lake City, Utah

Ms. Han Duong
Hilo, Hawai'i

Mr. Christopher Edwards
Laboratory of Marine BioChem
Honolulu, Hawai'i

Mr. Bradley S. Evans
University of Illinois
Urbana, Illinois

Ms. Yvonne K. Fazendin
Deakin University
Waurn Ponds, Victoria, Australia

Mr. Qifeng Han
Changde, China

P. Matthew Joyner
University of Oklahoma
Noble, Oklahoma

Ms. Hyunjung Kim
Chicago, Illinois

Ms. Katie Marie Kirby
University of Oklahoma
Norman, Oklahoma

Ms. Brandi L. Kivi
Hawai'i Pacific University
Honolulu., Hawai'i

Wenhao Cedric Kuo
East West Medical Research Institute
Honolulu, Hawai'i

Mr. Lukasz M. Kutrzeba
Oxford, Mississippi

Mr. Jason C. Kwan
University of Florida
Gainesville, Florida

Mr. Kevin Lewellyn
University of Mississippi
Oxford, Mississippi

Zhibin Liang
Honolulu, Hawai'i

Dr. Tracie Locklear
University of Illinois
Chicago, Illinois

Dr. Haitao Lv
Harbin, China

Ms. Karen Lynch
Albany College of Pharmacy and Health Sciences
Vergennes, Vermont

Ms. Theresa Meickle
Jupiter, Florida

Mr. Eric J. Mejia
Santa Cruz, California

Mr. Brian Morgan
University of Mississippi
Oxford, Mississippi

Michael Nigh
Clemson, South Carolina

Mr. Ifedayo V. Ogungbe
Huntsville, Alabama

Mr. Larry C. Okpako
Bradford, United Kingdom

Mr. Philippe Ndjolo
Brussels, Belgium

Ms. Lisa T. Pan
Atlanta, Georgia

Ms. Kelly Corbus Peach
Santa Cruz, California

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New Members of ASP 2009

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Alejandro B. Preciado
University of Hawai'i, Manoa
Honolulu, Hawai'i

Mr. Edmund V. Price
National Cancer Institute
Frederick, Maryland

Mr. Daniel Puckett
Athens, West Virginia

Mr. Feng Qiu
Chicago, Illinois

Mr. Chinmay Rath
Central Council for Research in
Ayurveda and Siddha
New Delhi, Other Territories, India

Kathryn E. Roege
Georgia Tech
Atlanta, Georgia

Laura M. Sanchez
Santa Cruz, California

Mrs. L. P. Slatkin
Buffalo Grove, Illinois

Jennifer P. Sturgill
Altoona, Pennsylvania

Shuang-Yan Tang
University Park, Pennsylvania

Kittikhun Wangkanont
Cambridge, Massachusetts

Ms. Amanda L. Waters
University of Mississippi
Altus, Oklahoma

Katharine R. Watts
University of California, Santa Cruz
Santa Cruz, California

Mr. John T. Whitteck
Urbana, Illinois

Priscilla Winder
Fort Pierce, Florida

Mr. Daniel B. Woolridge
Washington, D. C.

Mr. Huaping Zhang
Clemson, South Carolina

A Look at the ASP 50th Anniversary Meeting

Photos by: Dr. Scott Baggett, Mr. Adam Kavalier, and Mr. James Lyles

Brief News From Washington

by Dr. Georgia Perdue

• For the last 10 years the National Cancer Institute's (NCI) Rapid Access to Intervention Development (RAID) program was designed to help researchers further the development of their potential anticancer agents. **Since August, the RAID program has been incorporated into NCIs Experimental Therapeutics (NExT) program**. According to Dr. James Doroshow, director, Division of Cancer Treatment and Diagnosis (DCTD), NExT is a collaboration between NCIs DCTD and the Center for Cancer Research (CCR) to help provide greater efficiency and improvement in NCIs drug development efforts. "NExT was designed to bring NCI's diverse drug development efforts into a single pipeline. [It will provide a formal] business-like approach to the development of potentially promising therapeutics. Several agents are already in the pipeline." The first agent from the RAID program, paralatrexate, was recently approved by the Food and Drug Administration (FDA) for the treatment of peripheral T-cell lymphoma.

• Dr. Michael Grever, formerly with NCI and now Chair of Internal Medicine, College of Medicine, Ohio State University (OSU), along with OSU colleagues Drs. A. Douglas Kinghorn, Jack Beal Professor, College of Pharmacy and Dr. David Lucas, Department of Internal Medicine, is working on the **natural product silvestrol, a novel cyclo(b)benzofuran**. Dr. Grever hopes, with the help of NExT, to get the agent into Phase I clinical trials for use against chronic lymphocytic leukemia and acute lymphoblastic leukemia. The compound was synthesized by Boston University's Dr. John Porco, Jr. Drs. Porco and Jerry Pelletier, McGill University, are working on the mechanism of action as is Dr. Steve Swanson, College of Pharmacy, University of Illinois, Chicago. There are a number of potential mechanisms of action; the optimal one will most likely be confirmed in clinical trials. **Silvestrol was first isolated from *Aglaia foveolata* (Meliaceae)** by Dr. Kinghorn's group when he was at the College of Pharmacy, University of Illinois, Chicago. The identity of the plant was confirmed by Dr. Christine Pannell, University of Oxford. The first collection in 2000 included fruit and twigs collected in Central Kalimantan, Indonesia, Island of Borneo, by Dr. Soedarsono Riswan of the Herbarium Bogoriense, Bogor, Indonesia. As expected, the fruit had higher yields of silvestrol than the twigs. In 2005, the leaves and stem bark were collected; again, as expected the bark yielded higher amounts of the compound. Two years ago, Dr. Riswan collected a large sample of stem bark from which a "solid residue" of a methanol extract was sent to Dr. David Newman, Chief, Natural Products Branch, NCI, Frederick, Maryland, who worked with Mr. Thomas McCloud, Head, Natural Products Support Group at SAIC-Frederick, a wholly owned subsidiary of Science Applications International Corporation, where two grams of silvestrol were isolated and are now being used for biological testing. Stay tuned!

• At the September National Institute of Allergy and Infectious Diseases (NIAID) Advisory Council meeting, NIAID director Dr. Anthony Fauci said the increase recommended in the President's FY 2010 budget for NIH represents the President's goal to double the cancer research budget over the next 10 years. Each institute may get a 1% increase. Dr. Fauci also noted that **in 2010 the new peer review system for scoring grant applications will go into effect**. A surge of several hundred more R01 grant applications are anticipated by NIAID, partly from investigators who were unsuccessful with the Challenge Grants. If this happens, Dr. Fauci expects the success rate to drop because more applications will be competing for funds. He hopes the payline will be higher by next January. He reminded the Council that "things are in flux; they are complicated. We are trying our best… [to fund] grants without overshooting or undershooting."

• At the National Cancer Advisory Board (NCAB) meeting in September, NCI director Dr. John Niederhuber, talked about putting together **a new intramural chemistry group.** Dr. Robert Wiltrout, Head, Experimental Therapeutics Section, Laboratory of Experimental Immunology, NCI, Frederick, Maryland, and Director, Center for Cancer Research (CCR), and NIH Scientific Director for Basic Science, further elaborated saying that about a year ago NCI lost most of its senior chemists to either retirement or untimely deaths. **Dr. Joel Schneider was hired as the senior chemist**. Formally a professor at the University of Delaware, Newark, Delaware, Dr. Schneider's field is material science and development of materials for drug delivery. Dr. Wiltrout also noted that **NCI wants to "beef up" its natural products chemistry work**, a "unique niche" to partner with DCTD. NCI is also contracting out much of its applied chemistry research to SAIC-Frederick, which operates laboratories for NCI –Frederick.

• The Dr. Niederhuber told his Board of Scientific Advisers (BSA) in November that from the ARRA (American Recovery and Reinvestment) money, **NIH funded 18 of NCI's Challenge Grants**, which had a success rate of 20%. **NIH matched NCIs funding of 18 cancer Grand Opportunities (GO) grants; the NCI-funded an additional 33 GO grants all with an overall 17% success rate.** There seems to have been great frustration at NCI in accepting ARRA funds, because, as Dr. Niederhuber pointed out to his BSA, Administration staff wanted to know what NCI would do with the money and how the results would decrease healthcare costs. "The number of eyes that looked at what we were doing and did not know what they were looking at [increased] our workload. Putting dollar amounts on science [showed a lack of understanding] because science is not a building or a bridge."

• Dr. Francis Collins, the new NIH director, received great praise from two institute directors: Dr. Fauci told his

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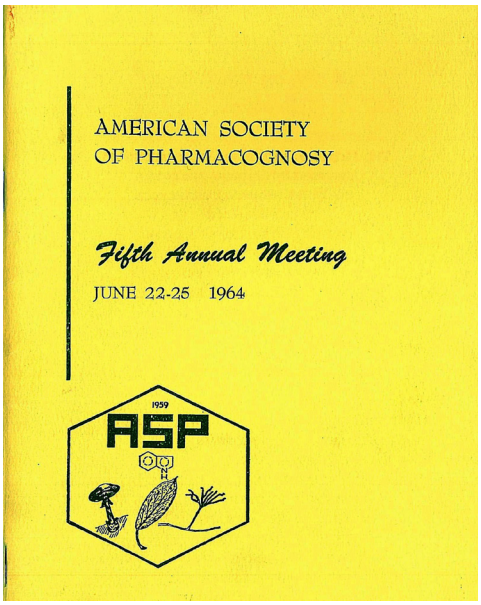
From the Archives

ASP's Milestone Meeting

by Ms. Anna Heran, Lloyd Library Archivist

During this inaugural article from the Lloyd Library, I would first like to take this opportunity to thank ASP for selecting the Lloyd as its archival repository. We are delighted to be in receipt of the Society's historic materials. This issue's archival pick is from the recently acquired ASP materials sent by Dr. John Staba, a founding member of ASP. Dr. Staba kept a fair number of the early programs and for this issue I have chosen the first milestone meeting for the ASP, the 5th Annual Meeting from 1964. The Society met at the University of Pittsburgh, Pittsburgh, Pennsylvania. The meeting topic was the "Chemistry and Biological Activity of Catharanthus, Vinca and Related Indole Alkaloids."



Dr. Gordon Svoboda was president that year and gave several presentations on his *Catharanthus roseus* research at Eli Lilly and Co. He actually was involved with or presented no less than four scientific presentations that year, and others such as Drs. Norman Farnsworth and Lynn Brady also gave multiple presentations.

The membership was growing, but still small enough that members could or had to give multiple talks to fill the time. Things have changed considerably since then! Other notable differences largely revolved around housing, as most participants stayed in the Men's Residence Tower at Pitt, while women and families stayed in McCormick Hall, which was not air-conditioned during late June in Pittsburgh!

Dr. Staba remembers, "Science was the best yet and kept 'us' moving forward. The post-conference on a Pittsburgh river "cruise" ship featured Norm's impersonation of Elvis gyrating and his discovery of VINCATINI - or was it Harry Svoboda or Lynn Brady???" Some things never change, such as the Luau in Hawai'i, for those of you who attended!

This article is also an opportunity for the Lloyd to ask for any additional historic materials that members might have. We received four boxes from Dr. Bill Keller, one box from Dr. John Staba, and we have the Raffauf and Tyler collections, some of which have been shown here in past issues of the *Newsletter*. What would the Lloyd want, you might ask?

We are accepting meeting programs, reports, and minutes, both general and committee, official or unofficial correspondence relating to the organization, presentations in paper format, photographs, memorabilia (we have received meal tickets, meeting bags, Roast dvd's, the commemorative coin, etc), and iterations of bylaws and other governance documents. We do not yet have all the programs or *Newsletters* and are filling in gaps as every little bit helps. However, we do have a complete run of the *Journal of Natural Products* in all its various names, so we do NOT need those. Anything else is fair game.

As we begin to sift through the newly acquired ASP materials, and hopefully add to that with your contributions, we will find even more interesting memorabilia and information to share with you about your ASP. For more information on donating materials, please contact me at archivist@lloydlibrary.org.

Brief News From Washington

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Advisory Council "… he is a superb scientist, inspiring leader and a good friend. It's a pleasure to welcome him back to NIH ." Dr. Niederhuber told the NCAB "… We go back a long, long way to the University of Michigan when I was Assistant Associate Dean for research… working with the… Chairman of the Department of Genetics. We recruited this young man where he launched his career…." The rest is history. **Dr. Fauci summarized what Dr. Collins outlined as his goals for NIH** when he spoke to NIH employees on his first day on the job. They include "a continued investment in cutting edge science and promoting high-throughput technologies; translational research, including a new program to develop more effective drugs for rare diseases; the importance of global health; empowering the biomedical research community by supporting young scientists, funding innovative research and sustaining a stable research funding base…."

- NCI reports that a Yale University professor, Dr. Yung-Chi Cheng, whose interest is in Chinese traditional medicine, has reformulated an **herbal mixture, PHY906**, which helps cancer patients with chemotherapy side effects like diarrhea, nausea and vomiting. When PHY906 was given in a small clinical trial to patients taking irinotecan as one of the combination drugs for colon cancer, there seemed to be greater anticancer activity. **One of the ingredients in this mixture is grapefruit juice**. Stay tuned.

David J. Slatkin, Ph.D, Treasurer
The American Society of Pharmacognosy
3149 Dundee Road, #260,
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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,
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