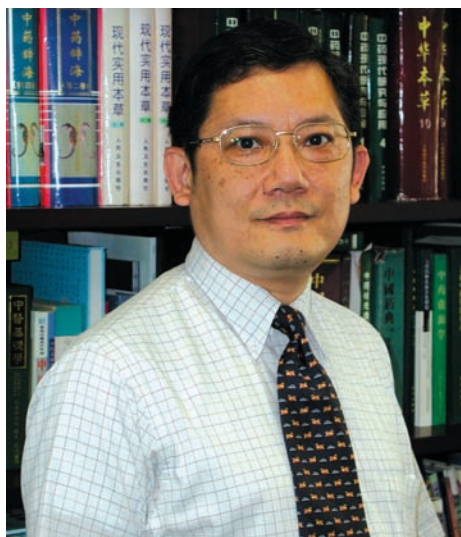




Che Named First Farnsworth Professor of Pharmacognosy



Dr. Che

by Dr. Edward J. Kennelly and Ms. Amy Keller

Dr. Chun-Tao Che has been named the first Norman R. Farnsworth Professor of Pharmacognosy at the University of Illinois at Chicago (UIC) College of Pharmacy, and will begin this position in January, 2011. Dean of UIC's College of Pharmacy, Dr. Jerry Bauman officially announced the appointment at the Farnsworth Symposium in Chicago, Illinois, on March 23, 2010.

"I am privileged to be the first Norman R. Farnsworth Professor of Pharmacognosy at the University of Illinois at Chicago (UIC)," Dr Che said. "This prestigious position honors the career and accomplishments of Dr. Farnsworth as a seasoned scientist, a caring educator, and a vision-

ary pioneer in modern pharmacognosy. As a former student of UIC, I am profoundly grateful for the education and training I received there, and I feel highly honored to be a member of the pharmacognosy team in my alma mater. This new title will keep reminding me of the gloried history of pharmacognosy at UIC and my commitment to the field."

Dr. Che did his doctoral research at UIC under the mentorship of ASP member and past president, Dr. Harry Fong. After a postdoctoral position at Ludwig Institute for Cancer Research, Toronto, Canada, he returned to UIC. In 1995, he became a founding member of the faculty of the Hong Kong University of Science

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ASP 51st Annual Meeting

by Dr. Todd R. Daviau

From July 10 – 14, 2010, the ASP will celebrate their 51st Annual Meeting jointly with the Phytochemical Society of North America (PSNA) in St. Petersburg Beach, Florida (www.asp2010.com). Located on the historic white sand of St. Petersburg Beach, the Tradewinds Island Grand Hotel will be the official meeting venue.

An impressive scientific program, chaired by Dr. John Cronan, includes 16 plenary speakers, ASP and PSNA award presentations, at least 45 contributed oral talks, and greater than 300 posters in eight different Symposia! As of this writing there are registrants from over 18 countries. It can be said that our meeting will be a truly *global* perspective of pharmacognosy!

Our special event for Monday night will be a Caribbean-themed beach party, with food representing Floribbean flair. Entertainment will be provided by a local calypso band. As is customary, the meeting will close with the Annual Banquet on Wednesday evening, which will recognize the contributions of key members of the Society.

At least three workshops will be held on Saturday, July 10. A workshop on dereplication methods will be run by Dr. John Blunt of the University of Canterbury, New Zealand. There is no charge for this workshop but enrollment is limited to 25 people. A free course on "Automated Flash Chromatography for Purifying Natural Products" will be hosted by Teledyne Isco. The Single Laboratory Validation workshop will also be given, and is for anyone who

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EDITOR'S CORNER



In this issue of the *ASP Newsletter*, we are pleased to highlight the upcoming 51st Annual Meeting in Tampa, Florida, from July 10-14. ASP member Dr. Todd Daviau provides information about the great scientific and social programs that he and the other organizers have assembled. He also includes pertinent information about various activities and restaurants to help members plan for the most fun possible. I look forward to seeing many members at this meeting.

This past March the University of Illinois, Chicago, College of Pharmacy hosted a symposium entitled, "Developments in Botanical Dietary Supplements Research from 1994 to Today." It was an outstanding scientific symposium, which was capped by the official announcement by UIC of the first Norman R. Farnsworth Endowed Professor of Pharmacognosy, Dr. Chun-Tao Che. This is truly a landmark in pharmacognosy education in the United States, and we wish our fellow ASP member, Dr. Che, great success in his new position.

Although we call ourselves the "American Society of Pharmacognosy," we are really an international organization, with members in numerous countries throughout the world, many of whom are regular attendees at our Annual Meetings and actively contribute to our flagship journal. ASP member Leon Goity in Santiago, Chile, keeps us updated on his experiences with the recent earthquake. We are grateful for his safety and send our continued thoughts for a complete recovery in Chile and Haiti.

We also keep in mind our American colleagues whose research may have been impacted by the recent oil spill in the Gulf of Mexico. As a country, many of us are saddened and frustrated by this disaster. The *Newsletter* will try to keep ASP members updated on how this crisis affects pharmacognosy research by working with ASP member and past president, Dr. Bill Baker, on this story for the next *Newsletter*. Please contact Dr. Baker or me if you wish to contribute to this story.

With this issue, the *Newsletter* bids a farewell to layout editor Mr. James Lyles, who will be leaving us to focus on his dissertation. We wish to congratulate Mr. Lyles on his amazing artistic work for the *Newsletter*. I credit Mr. Lyles with dramatically changing the style of the *Newsletter* more than four years ago. Among other things, he designed our eye-catching logos for the articles Minorities and Women in ASP. For our article on the history of the *Journal of Natural Products*, Mr. Lyles put together an extensive timeline, complete with photos and colorful graphics. All the beautiful photo montages from our various annual meetings were compiled and often taken by Mr. Lyles. We will miss his talent and eye for engaging and colorful design. Always fun to work with, Mr. Lyles contributed a fantastic effort to the *Newsletter* and did this with a professional and humorous attitude. Bon voyage, James, best of luck for the years ahead!

As Mr. Lyles departs the *Newsletter*, we welcome our new layout and production coordinator, Ms. Nancy Novick. Ms. Novick comes to the *Newsletter* with considerable design expertise, and she is already starting to place her mark on the *Newsletter's* look with her font choices and updated page layout. Welcome on board Nancy!

Dr. Edward J. Kennelly

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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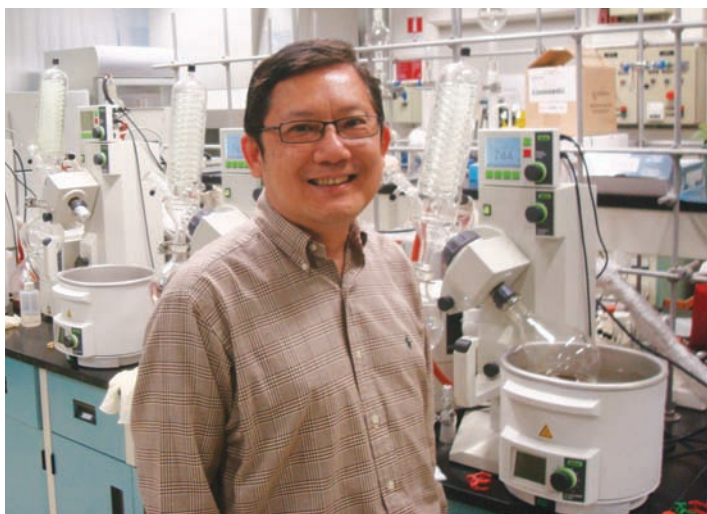
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Che Named First Farnsworth Professor of Pharmacognosy

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and Technology, and in 1998 he joined the Chinese University of Hong Kong as a Professor and Director of the School of Chinese Medicine at the Chinese University of Hong Kong.

Throughout his career, Dr. Che has been an highly productive researcher. He has published over 200 articles, many in top-ranked journals in his field. His research has focused on medicinal plants, many of which are used in Traditional Chinese Medicine (TCM). His research has spanned from phyto-



EDWARD KENNELLY

Dr. Chun-Tao Che in his laboratory at the Chinese University of Hong Kong

chemical analysis to the clinical effects of herbal medicines. He is considered one of the top pharmacognosy researchers in the world, especially in the field TCM. He also has an interest in literature databases of traditional and herbal medicine, an area that Dr. Farnsworth has long been a leading figure through the Natural Products Alert (NAPRALERT) database he established at UIC.

Dr. Farnsworth, who worked tirelessly to create this first-ever endowed professorship at UIC's College of Pharmacy, stated, "The Norman R. Farnsworth Professor of Pharmacognosy Endowed Professorship was set up by gifts from Mr. Tom Chappell and his wife and my wife and me. It was partially conceived to insure the continuing of the scientific traditions set by myself and pharmacognosy at the University of Illinois College of Pharmacy. Professor C.T. Che will occupy the Professorship at the beginning of 2011 and has the background, reputation, and scientific interests that will insure that research will continue in the area of natural products, especially with higher plants, at UIC."

Dr. Che is a recognized international expert in the field of pharmacognosy. He serves on the editorial boards of a number of international journals, including *Phytotherapy Research*, *Journal of Ethnopharmacology*, *Pharmaceutical Biology*, as well as a number of Chinese journals. He has also served in leadership roles in a number of professional societies. Dr. Che is a respected and leading figure internationally in pharmacognosy.

Dr. Che has extensive experience training doctoral students in pharmacognosy as well as postdoctoral fellows, a role considered to be vital for the Farnsworth Professor. Dr. Che is committed to building up a strong pharmacognosy graduate program at UIC. His goal is to train the next generation of pharmacognosists who are not only good in science but also visionary and committed to the discipline. "I will also seize every opportunity to promote the development of pharmacognosy as a research and professional discipline. We have all witnessed the ups and downs of this field in the past decades. I believe it is high time to foster a sense of unity among pharmacognosists and join force to lead the field in meeting the challenges ahead."

Dr. Che has an established record in the world of grants. He worked as a sub-project leader of Dr. Garth Powis' NCI grant "Cancer drugs against signal transduction targets." He also worked with Dr. Brian Berman of the University of Maryland on two NIH-NCCAM grants on the irritable bowel disorder (IBD) and Chinese medicine. The first grant with Dr. Berman led to a five-year funded project on IBD where Dr. Che served as co-investigator and project and core leader. Besides his NIH-grant experience, Dr. Che has a long and steady record of funding from the government of Hong Kong, universities, and some private funding.

Interest in TCM in the United States has grown considerably in the past decade. At the same time, China has devoted considerable resources to better standardized TCM using modern laboratory methods. Dr. Che has been at the forefront of this movement. His international reputation on TCM research will bring considerable strength and recognition to this arena of pharmacognosy research to UIC. The research of UIC Professors Farnsworth and Fong on TCM is well known, and it therefore seems appropriate that the first Farnsworth Professor bring expertise in this ever growing field of TCM.

Dr. Che plans to start a research group at UIC, which he hopes will be complementary to the existing vibrant pharmacognosy team in the Department of Medicinal Chemistry and Pharmacognosy. He will focus on the discovery of bioactive natural products, particularly those from traditional medicine. "While I have been studying mainly Chinese medicinal herbs, either singly or in combination, in the last 20 years, I will not limit myself to only one ethnomedical system. I will actively seek for working partners, both in the United States and in the rest of the world."

Dr. Che and his wife are looking forward to moving back to Chicago after being away for 20 years. "Both of us lived there for over ten years, and, as a matter of fact, we met, got married, and our daughter was born there. Chicago is a place dear to our hearts and we all feel excited to go back to the Windy City."

The establishment of the Farnsworth professorship signifies Dr. Farnsworth's vision and unfailing support to the development of pharmacognosy. Dr. Che hopes that by setting up this position, it will help foster deeper and fruitful collaborations among pharmacognosists and colleagues in related disciplines. ■

ASP 51st Annual Meeting

continued from page 1

performs, supervises, manages, audits, or oversees the validation of analytical methods for the quality control of dietary supplements. There is a fee of \$395 for this course. Information and registration on these workshops may be found on the meeting website.

As is traditional for the ASP meeting, Tuesday afternoons are left open for you to decide how you wish to spend your time. You may wish to lie on the beach, go shopping, or go sightseeing. Although it is customary for the meeting organizers to plan excursions, there is so much to do in the Tampa, St Petersburg area that we didn't want our guests to feel limited. Be assured, the Tradewinds Tour Desk maintains a schedule of a wide variety of tours of various types and durations. It is not uncommon to run out of vacation before you run out of things to do at TradeWinds Island Resorts. Come splash the day away in the warm waters of the Gulf of Mexico. Or play all day with volleyball, tennis, golf, and an almost endless list of sun-filled activities. For the adventurous, you can even soar on a parasail, snorkel in clear waters, speed over the gulf in a waverunner, or keep an eye out for our area's most famous residents during a dolphin watch cruise. Advance registration is recommended for all tours, and these tours are available on most days of the week.

One place to look for ideas on activities is:

www.stpete.org/the50things.asp

Other Useful Information

A 20-acre beachfront playground, at TradeWinds Island Grand was created with fun in mind. Bask beside one of five heated pools. Let the kids play at the KONK Club while you indulge in a massage or a romantic dinner. Explore the impeccably landscaped grounds by paddleboat along the meandering waterway. Give the concierge a call to arrange a fishing, golf or snorkeling excursion. At the Island Grand, your choices are limited only by your imagination.

For an interactive map of the property visit:

www.tradewindsresort.com/view-the-properties.aspx

What about the Oil?

Thus far, there is no evidence that the oil slick from the BP oil platform fire and subsequent explosion will reach the St Petersburg/Clearwater beaches. "All indications from experts in our immediate area state that it is unlikely our area will be affected ... for the foreseeable future," it reads. "Though we cannot guarantee weather, winds or currents, the Gulf Coast is open for business as usual." It is believed that as the oil moves eastward in the Gulf of Mexico, it will be swept into the gulf loop current and move down into the Florida Keys and up into the east coast of the United States. The only oil on our beaches is suntan oil.

Other Information...

Getting from the Tampa Airport to the Tradewinds or other hotels.

Most hotels on St. Pete Beach do not offer their own shuttle service, but there are other good options. These are described in detail on the "Travel" link on the meeting webpage.

Climate

Generally, the temperatures during daytime will be in the 90's (F) and evenings in the 80's (F). Humidity is high.

Bring the Kids – The Hotel offers Childcare Services

KONK Club (Kids Only, No Kidding!) – No boring family vacation

here! The KONK Club's experienced counselors take fun seriously. These supervised programs offer a wide range of exciting things to do for kids aged 4-11 that include lunch or dinner, games and themed activities. Drop off the kids and enjoy a few hours to yourself to relax in a hammock or enjoy a quiet romantic dinner. Pre-registration is required, space is limited, nominal charge. For a full list of activities visit:

www.tradewindsresort.com/kids-activities.aspx

Activities

While it is customary for the Organizing Committee to plan a few excursions for Tuesday afternoons, we decided that since there is so much to do in the area and our membership has so many diverse likes, that we would not plan your day. The TradeWinds concierge is knowledgeable and will be available for your every need. If you want to plan your trip before your arrival, there are several very good sites to assist:

www.visitstpeteclearwater.com/content.floridasbeach.com/

Internet

The meeting will have an internet café available until 6 p.m. for most days of the meeting. Wireless internet service is available in guest rooms for approximately \$13/day. Internet kiosks are scattered throughout St Petersburg Beach.

Parking/Car Rental

Parking is available at the Hotel for ~\$20/day. It is recommended that you rent a car for only the days you need one. There is a Hertz car rental agency onsite. And Avis at the hotel next door and Dollar less than 1 mile down the road.

Things to Pack

Shorts, swimsuits, hat, sunglasses, and sunscreen lotion.

FOOD

Besides the thirteen restaurants on site, there are several fabulous local seafood restaurants on St Petersburg Beach and near-by Pass-a-Grille Beach. A few of my favorites:

- ◆ Snappers – you have to try the Blue Tuna (Sushi grade Tuna with a Blueberry teriyaki marinade) (www.snappersseagrill.com)
- ◆ Silas Steakhouse (www.silasdentsteakhouse.com)
- ◆ Crabby Bills (www.crabbybills.com)
- ◆ The Wharf (www.wharfrestraurant.org)
- ◆ Hurricane – watch the sunset from the Hurricane deck while sipping a Mai Tai (www.thehurricane.com)
- ◆ Sea Critters (www.seacritterscafe.com)
- ◆ Blue Fugu – Japanese style steakhouse & sushi bar (www.bluefugu.com)

There are many restaurants within walking distance – looking for a particular culinary "style" just give the concierge an opportunity to assist.

The local Committee will have information and maps available to help you find a place to get food. ■

We are looking forward to sharing our local bit of paradise with you – see you in July...!

Farnsworth Honored with Botanical Symposium



EDWARD J. KENNELLY

Dr. Norman Farnsworth with his wife Pricilla at the Symposium



ANGELA BEAN

Dr. Norman Farnsworth (center) with his first graduate student, Dr. Harry Fong, and current graduate student, Ms. Kim Bean.

by Ms. Amy Keller

The University of Illinois, Chicago (UIC)/National Institutes of Health (NIH) Center for Botanical Dietary Supplements Research hosted a joint symposium and birthday celebration in honor of Dr. Norman R. Farnsworth entitled, "Developments in Botanical Dietary Supplement Research from 1994 to Today." The symposium took place on March 23, 2010, and featured updates from botanical researchers in many aspects of the science since the passing of the Dietary Supplement Health and Education Act (DSHEA) in 1994. A banquet honoring Dr. Farnsworth followed the symposium.

Dr. Farnsworth noted, "From all input to date, the Botanical Symposium was excellent and timely. It clearly covered all aspects of botanical dietary supplements from legal to mechanisms of action to clinical trials. The banquet and "roast" that followed was an event to be remembered. It was so nice to have friends, former students, post-docs, and colleagues in attendance from Germany, Italy, Korea, Panama, Mexico, Canada, Indonesia, and the United States."

The symposium focused on the current state of botanical research, including results of recent clinical trials of both *Trypterygium wiferdii* and *Cimicifuga racemosa*. Recent research into gut microflora's impact on natural product availability and bioactivity, as well as various enzymatic targets for assays was presented. The last session, entitled "Round Table Discussion: Future Trends" defined future directions for botanical research such as attention

to reproducibility, better production and standardization, the impact of gut microflora, and possibilities of the "omics" fields in natural product research. All in all, most attendees agreed that botanical research has a bright future, and that the symposium was inspiring.

Following the symposium, a banquet took place to celebrate Dr. Farnsworth's 80th birthday. Dr. Farnsworth was roasted and honored through songs, stories, and photographs presented by his many former students, colleagues, and associates. The multitude of praise, colorful anecdotes and creative photos all communicated the common message of gratitude and appreciation for Dr. Farnsworth's efforts towards his students and the field of natural product research.

In the words of Dr. Farnsworth's first graduate student, Dr. Harry Fong, "Norman R. Farnsworth is one of a kind. The mold from which he was made, was destroyed afterwards." Ms. Kim Bean, Dr. Farnsworth's current graduate student, relates, "Dr. Norman Farnsworth is a modern-day Ben Franklin in virtue and ingenuity. He embodies the spirit of academia like no other professor I have met. His mentorship is invaluable and I am fortunate to be one in line of his hundreds of students, though I can not fathom being the last."

Symposium presenter, Dr. David Eisenberg, ended his presentation with a Chinese proverb thought to perfectly describe Dr. Farnsworth: "A teacher for one day is a parent for a lifetime." ■



EDWARD J. KENNELLY

UIC's newly appointed pharmacognosy faculty members (seated), Drs. Chun-Tao Che and Brian Murphy at the Symposium lunch.

Farnsworth's First Graduate Student Reminisces

by Dr. Harry Fong

Being the first graduate student is a unique and challenging experience for anyone, but more so in my having been Dr. Norman Farnsworth's first of 40-plus students (to-date). Norm and I were classmates of sorts, as he received his Ph.D. and I received my B.S. in Pharmacy from the University of Pittsburgh at the same ceremony (1959). We were also fraternity "brothers", being members of the Phi Delta Chi Pharmaceutical Fraternity, with Norm being one of my initiators ("tormenters") in 1955.

When I became Norm's graduate student in the Fall of 1959, he set the tone for my tenure with him in our first meeting, when he said, "Fong, you are now asexual". By that colorful metaphor, he meant that he expected me to work day and night, with no time for socialization. Truer words were never uttered, before nor since. In 1959, and for a few years after, Norm was the only tenure-track faculty member in the Department of Pharmacognosy, School of Pharmacy, University of Pittsburgh. Since I was his only teaching assistant in the 1959-1960 academic year, it meant that aside from my attending graduate level courses, I worked side-by-side with Norm during the daylight hours, preparing and teaching two pharmacognosy and two microbiology laboratory classes each week. Norm delivered all the lectures in those two courses, except for the occasional fill-in by me, when the search for research sponsorship dictated his absence. This duo disciplinary teaching load led to our having to do research in the evenings and weekends, with our daily "conferences" taking place around 11 pm or midnight.

Being in such close contact day and night, our relationship went beyond that of "mentor-student." We became close friends and confidants, with no subject being taboo in our conversations. We



ANGELA BEAN

Dr. Harry Fong, in Hong Kong.

came to know each other so well that we knew what the other is thinking without verbalization. In fact, one of Norm's fellow faculty members remarked to me in one occasion to the effect: "Harry, your relationship with Norm is a unique one. I have never seen another professor, who has worked with, and confided in his student to the extent that Norm has with you." Our friendship aside, Norm set a high bar and demanded a high level of performance. My two years of graduate studies (M.S. in Pharmacognosy, 1961) with Norm set the foundation for my Ph.D. studies at the Ohio State University and subsequent academic career, which has been entirely associated with Norm from 1965 to today.

We have been a productive team, and life with Norman R. Farnsworth is never dull. ■

Rimando Awarded "Senior Scientist of the Year"

by Ms. Amy Keller

On June 8, 2010, at the The United States Department of Agriculture, Beltsville Agricultural Research Center in Maryland, ASP member Dr. Agnes Rimando was awarded the The United States Department of Agriculture, Agricultural Research Service "Senior Research Scientist of the Year" award for the Mid South Area for 2009.

Dr. Rimando notes, "The USDA, Agricultural Research Service (ARS) confers eight Scientist of the Year awards yearly for each of the eight ARS geographical areas, to "recognize the creative efforts, scientific leadership and the major research accomplishments of ARS research scientists." It is a great honor for me to be selected as the Senior Research Scientist for the Mid South Area for 2009, and I am thankful for the recognition."

When asked about the nature of her work, Dr. Rimando told the *Newsletter*, "My research has centered on pterostilbene, an ana-



J'LYNN HOWELL

Dr. Rimando

log of resveratrol. Together with collaborators, we discovered new pharmacological activities for this compound, specifically a lipid-lowering effect through PPAR α activation and reversal of cognitive deficits in aging. I also discovered pterostilbene in blueberries, and these discoveries have contributed to the popularity of blueberries. In the United Kingdom, it has been reported that blueberry sales surged 185% following reports on the presence of, and the health benefits associated with, pterostilbene. Our studies have had positive impact to blueberry growers and the blueberry industry, as blueberry acreage has increased. A number of blueberry dietary supplements have appeared on the market, and some are being standardized for pterostilbene content. My research further expands the boundaries of pharmacognosy to the discovery medicinally active constituents in foods and crops."

We congratulate Dr. Rimando on this prestigious award and wish her the best for her future research. ■

ASP Presidential Address

by Dr. Tadeusz Molinski

Two significant events in California that framed the first half of my year were linked by a common thread – science education and literacy. The first was the annual meeting of the American Academy of Advanced Sciences, “the world’s largest general scientific society,” held during the week of February 18th at the convention center by the bay in San Diego, and the second was the Intel Science and Engineering Fair (ISEF), which drew over 5,000 young participants to the campus of San Jose State University during the week of May 10th. Each event brought thousands of people to one place to communicate science. The AAAS meeting comprised of professional science practitioners, educators, administrators and policy makers, while the second showcased fledgling scientists, eager to show their highly polished experimental science projects to a receptive audience.

During one of those glorious winter weeks in San Diego, when warm desert winds blow offshore, and crisp clean air moves beneath cerulean skies, AAAS registrants embraced the conference theme, “bridging science and society,” and pondered the serious science challenges facing the United States. Declining science literacy threatens the economic well-being of the nation and the quality of life that is enjoyed by all enlightened societies of the world. A citizenry, well-informed with balanced information of the cornerstone issues in contemporary science, will be better prepared to assess its future in the face of rising demands for energy and resources, climate change, and the age of personalized medicine that was brought about by revolutionary scientific progress in diverse areas such as genomics and stem cell research. On the first day of the San Diego meeting, the AAAS president,

Declining science literacy threatens the economic well-being of the nation and the quality of life that is enjoyed by all enlightened societies of the world.

Nobel Laureate Dr. Peter Agre, and Dr. Marye Anne Fox, chancellor of University of California, San Diego, also took the message to the people on a talk-back radio program, hosted by the local National Public Radio station, KPBS. It was heartening to hear these two extraordinarily accomplished scientists speak with one voice that we must improve science literacy in this country.

The ISEF was an amazing event, funded by industry, government agencies, scientific societies, including your very own ASP, organized by dozens of dedicated individuals such as our very own Dr. Roy Okuda, but powered by enthusiasm and the intellectual tenacity of young high school science students from all over the world. Brilliant young minds presented thousands of posters on science projects, including natural products research. Young and old recapitulate the theme of “science bridging society”.



TADEUSZ MOLINSKI

President Molinski

So how does your natural products guild, the ASP, participate in promotion of science literacy? Whether a dean of a college of pharmacy or an undergraduate researcher in a natural products laboratory, you are an educator that can tell the story of natural products and convey their significance in the modern world. The first pharmacopeia in the western world was published in London in the 1600’s but systematic accounts of natural products can be found in ancient texts including Greek, Chinese, and Ayurvedic herbals that go back centuries. In fact, early Egyptian use of plant-derived medicine extends back over eight millennia! Even now, natural products are everywhere in the modern world from fragrances and flavorings to drugs.

Despite ancient beginnings, natural products project their contemporary societal value into our age. Over 40% of prescription drugs in use are natural products, or derived from natural products, or synthesized from designer molecules whose inspirations derive from natural products. Modern antibiotics are mostly natural products, and they transformed modern society by banishing premature death in otherwise fatal cases of septicemia and deep-wound infections. For example, the late Australian chemist, Dr. Athel Beckwith (Australian National University), who passed away this May at age 80, contracted osteomyelitis at a young age in the 1940’s and was spared a shortened lifespan by emergency treatment with the then-new wonder drug penicillin.

If you are active in research in natural products, speak up, tell your story, and share your passion for the subject at every opportunity. Your audience may be your family at the Thanksgiving table, a scientific convention, a class of children you present to during a visit to an elementary school, or a lunchtime conversation with a new friend. When I was in graduate school, I jointly hosted a weekly ‘science show’ on 2XX, the campus

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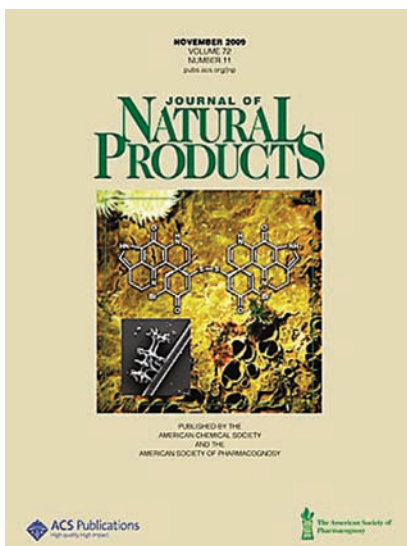
2009 Schwarting and Beal Award Winners

by Dr. A. Douglas Kinghorn

ASP congratulates the 2009 winners of the Arthur E. Schwarting and Jack L. Beal Awards. The Schwarting Award was given to **Deborah M. Roll**, Laurel R. Barbieri, Ramunas Bigelis, Leonard A. McDonald, Daniel A. Arias, Li-Ping Chang, Maya P. Singh, Scott W. Luckman, Thomas J. Berrodin, and Matthew R. Yudt for the paper entitled, "The lecaninoides, nonsteroidal progestins from the terrestrial fungus *Verticillium lecanii* 6144 in *J. Nat. Prod.* 2009, 72, 1944-1948. The Beal Award went to Leena Pohjala, Sami Alakurtti, Tero Ahola, Jari Yli-Kauhaluoma, and **Päivi Tammela**, for "Betulin-derived compounds as inhibitors of alphavirus replication" in *J. Nat. Prod.* 2009, 72, 1917-1926.

The corresponding authors (in bold) of these papers have been invited to attend the Banquet at the 51st Annual Meeting of the ASP to be held in St. Petersburg, Florida, July 10-14, 2010, to receive a check and a plaque in honor of this achievement.

In 2001, the Foundation Board of the ASP began a new initiative as a result of the Arthur E. Schwarting and Jack L. Beal Awards for best papers in the *Journal of Natural Products*. In this manner, two former distin-



Volume 72, issue 11 of the *Journal of Natural Products* contains the 2009 winning articles of both the Arthur E. Schwarting and Jack L. Beal Awards.

guished editors of the *Journal* are fondly remembered. The Schwarting Award is open to all papers published in the *Journal* within a given year (either in print or electronically). In turn, the Beal Award is awarded to younger investigators [i.e., persons within 12 years of receiving their Ph.D. degree or within 10 years of gaining their first professional appointment (e.g., Assistant Professor or an equivalent position in industry or government)].

A two-tier process was used to determine the winners for papers published in *JNP* in 2009, with editors Drs. Daneel Ferreira, A. Douglas Kinghorn, Richard G. Powell, and Philip J. Proteau having nominated two papers each for the Schwarting Award and one each for the Beal Award. ASP President Ted Molinski then appointed an ad hoc committee (Drs. Ben Shen, Chair, Barbara Timmermann, Shmuel Carmeli) to make the final selections.

The winning papers may be accessed freely from the home page of the *JNP* (pubs.acs.org/JNP). Congratulations to Drs. Roll and Tammela and their co-authors! ■

ASP Presidential Address

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radio station of the Australian National University. Perhaps the programming at your own campus radio station is in need of more diverse fare that showcases natural products. You would be surprised how easy it may be to get airtime! Dean Palmer Taylor at the Skaggs School of Pharmacy and Pharmaceutical Sciences, UCSD, likes to point out to his audiences the unique combinations of expertise in the basic science faculty of our professional school, several of whom also have appointments at the Scripps Institution of Oceanography ("We are the only school of pharmacy in the United States with strong links to a major oceanographic institution!") By the way, I would like to extend to you an early invitation to come to San Diego for the 52nd Annual Meeting of the ASP where you can see for yourself.

As a communicator and ASP member, you are a great ambassador for science literacy in natural products sciences. Your

continuing membership in ASP makes you part of something bigger, something inspirational with an educational mission. So, when you are next asked, "What is ASP?" or more commonly, "what is pharmacognosy?" seek the ASP homepage which begins with the words, "Pharmacognosy" derives from two Greek words, "*pharmakon*" or drug, and "*gnosis*" or knowledge," and goes on to describe our important role in pharmaceutical education. Use your contacts and social networks to spread the news. Remember, the ASP homepage now has links to Facebook, Twitter and LinkedIn. Do you have a natural products topic you wish to offer for discussion to people around the world? Inspire the next generation of natural products chemists, pharmacologists and biologists who may one day also present their own natural products projects at the ISEF, AAAS – and beyond. Be brave, stand out, and make a difference. ■

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Journal of Natural Products Honors Daly and Moore

by Ms. Amy Keller, Drs. Carole Bewly,
John Cardellina, and Brad Moore

To recognize the adventurous and illustrious careers of the late ASP members Drs. John Daly and Richard Moore, the March, 2010, issue of the *Journal of Natural Products* was dedicated in their honor. The issue contains 23 full articles, 11 notes, two contributed reviews, and two descriptive obituaries detailing the myriad achievements of both natural product scientists.

Dr. Daly, NIH Scientist Emeritus, passed away on March 5, 2008. Following a life long fascination with amphibians of all kinds, Dr. Daly will undoubtedly be remembered as the world's leading expert on amphibian-derived alkaloids.

Born in Portland, Oregon, Dr. Daly received degrees in Biochemistry and Organic Chemistry from Oregon State College in 1954 and 1955, and a doctorate in Organic Chemistry from Stanford University in 1958 where he determined the structure of a terpene alcohol present in peppermint oil. Later that year, Dr. Daly moved east to accept a postdoctoral position with Dr. Bernard Witkop in the Laboratory of Chemistry at the National Institutes of Health (NIH), and to begin what would be a spectacularly rewarding 50-year career at the NIH. In 1969, Dr. Daly became Chief of the Section on Pharmacodynamics, and in 1978, Founding Chief of what is still the Laboratory of Bioorganic Chemistry in the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK).

Dr. Daly was a long-standing and active member of the ASP. In recognition of his work, he has been a recipient of numerous awards including the ASP Research Achievement Award in 1997, the Ernest Guenther Award in 2002, and induction into the National Academy of Sciences in 1997.

Although Dr. Daly officially retired in 2002, he remained active in all aspects of research throughout his life, equally at home whether working in that "small office room" or collecting frogs, insects, and leaf litter in tropical rain forests. When we think of the loss of Dr. Daly, words spoken by former ASP President William Gerwick say it all, "The world has lost one of its truly great inhabitants."

On December 11, 2007, the field of marine natural products lost an icon, Professor Richard Elliott Moore. Dr. Moore passed away in Honolulu, Hawai'i, surrounded by his family, after battling multiple myeloma for many years and, more recently, pneumonia.

Dr. Richard Moore was born in San Francisco in 1933, but moved a few years later with his American mother and English father to England. Dr. Moore grew up in the San Francisco Bay area, where he developed a strong interest in chemistry and geology. He graduated with a B.S. in 1957, and M.S. in 1959, both in chemistry, from the University of San Francisco and



DRS. MARTIN GARRAFO AND RALPH SAVORITO



The late Drs. John Daly (left) and Richard Moore were honored with a special issue of the *Journal of Natural Products* in March.

moved to the University of California at Berkeley for his doctoral work with the late Professor Henry Rapoport on the "Alkaloids of *Geissospermum velosii*", a Brazilian tree rich in potent toxins used by native South Americans on their weapons.

After completing his Ph.D. work in 1962, he moved to the University of Hawai'i for postdoctoral work with the late Paul J. Scheuer in the emerging field of marine natural products. In 1966, he joined the University of Hawai'i faculty as an assistant professor and quickly ascended through the academic ranks to full professor. He worked tirelessly on marine natural products and cultured cyanobacteria until his retirement in 2003.

Perhaps Dr. Michael Kirkup, who earned his Ph.D. in 1980, best summarizes the experience of being a student of Dr. Moore, "Although few of us realized it at the time, Dick's management style was one in which we were trained to think independently and to interface natural products chemistry with other disciplines. This was excellent training for entry into pharmaceutical research. It led to a fascinating career, for which I owe a large debt of gratitude to Dick."

Dr. Moore tended to be quiet, serious, and focused on his research, but occasionally he revealed his sense of humor. In introducing one of his students for his Ph.D. seminar and defense, Dr. Moore noted that the student "had done a lot of work for someone who seemed to keep bankers' hours." However, he did draw the line at naming a natural product "polymethoxytolypothritoxin", even though he laughed at the idea of others trying to pronounce this tongue twister.

A poignant moment in Dr. Moore's career came during his award address upon receipt of the 2002 ASP Norman Farnsworth Research Achievement Award, when he showed a slide of his grandchildren and himself in a swimming pool and told the audience that "these are the natural products that I will be focusing on from now on." ■

ASP Honors ISEF Winners

by Dr. Roy Okuda

The 2010 Intel International Science and Engineering Fair (ISEF) was held in San Jose, California, from May 9-14, 2010. ASP awarded three prizes to pharmacognosy-related projects from presenters Mr. Leonardo de Oliveira Bodo, Ms. Sarah Marie Cox, and Mr. Andrew James Macgregor.

The ISEF featured over 1,600 student finalists from 59 countries competing for over \$4 million in scholarships and other awards. All of the students have already won regional or national science competitions, and represent the “best of the best” in the world today. Top awards included a \$75,000 unrestricted scholarship, two \$50,000 unrestricted scholarships, and a trip to the next Nobel Prize ceremony in Stockholm, Sweden.

The three ASP-awarded presentations were “Weaving Health: The Weaving of Antimicrobial Substances from the Ootheca of the Spider, *Phoneutria nigriventer*,” presented by Leonardo de Oliveira Bodo, 15, Dante Alighieri, Sao Paulo, Brasil, “*Vitis labrusca* Anthocyanin Identification and Their Antibacterial Effects on *Capra hircus* Hoof Rot Bacteria,” presented by Sarah Marie Cox, 15, Zane Trace Local Schools, Chillicothe, Ohio, and “Purification and Identification of a Peptide Antibiotic Produced by the Human Microbiome Bacterium *Bacillus flexus*,” presented by Andrew James Macgregor, 17, Butte High School, Butte, Montana.

This year’s judging team for the three ASP-sponsored awards consisted of members Dr. Mike Tempesta, Ms. Susie Tempesta, Dr. Michael Kernan, and Dr. Roger Linington. ASP President Dr. Ted Molinski presented the awards.

Mr. Leonardo Bodo told the *Newsletter* that, “Being an award winner at the Intel ISEF is something that certainly goes beyond simple prize money, or even a preparing for the future. I started my project from the reading of another project that was in ISEF 2009, and with that I felt really inspired to start my project by myself. Winning a prize in the Intel ISEF, for me, means in addition to all the wonderful things that are happening to me, like being recognized for hard work and being able to show everyone that, yes this is possible, you can start an incredible future in a amazing way, I can also do research and participate in the largest International Science and Engineering Fair. Receiving this award also means setting an example for other kids and even, who knows, for other adults. For me, that is to be one of the winners of Intel ISEF.”

When asked about the origin of his interest in spiders, Mr. Bodo



ISEF

ISEF winners of ASP-sponsored prizes, Ms. Sarah Marie Cox, Mr. Leonardo de Oliveira Bodo, and Mr. Andrew James Macgregor.

mentioned, “I think it begins with my grandpa. He has a farm, and there it was possible to find lots of insects and animals, and I always loved to be there. But, all of this began in a course in my school that made students interested in creating hypotheses and learning how to proceed with methods...there I began to study and to attempt to find something to research. I wanted something linked with biologic sciences, and after reading a project about antibiotics in arthropods and all the importance of this kind of research, I decided that I wanted to research in this area.”

He continued, “I observed that in natural places, it is possible to find signals of fungus in almost everything, like trees, leaves, and even the ground, but the fact was that in the web silk I couldn’t find those signals, and I hypothesized that it would be possible to find antimicrobial and antifungal substances in the spider web. I choose the ootheca because it is the web silk that envelops the eggs.”

Mr. Andrew Macgregor, a student of ASP member Dr. Andrea Stierle, also won last year and presented his project in one of the poster sessions at last year’s Annual Meeting in Hawai’i. He told the *Newsletter* that “In a visceral way, being there at the awards ceremony is one of the greatest rushes I’ve ever experienced. The spotlights playing over the crowd and the hundreds of flags being waved, all eyes focused on the stage. The excitement emanating from the crowd is palpable. Even the buildup to the big award (in this case the ASP award), the one you were hoping for, is tremendous. Then, you hear your name called and the adrenaline flows. Standing on the stage with two fellow scientists in front of a roaring crowd of your peers is the best feeling in the world.”

Mr. Macgregor mentions that he was not always so interested in science. He continues, “Dr. Andrea Stierle, my mentor, was a good friend of the family and I asked her to help me come up with a science fair project. At the science fair I presented a project about microbial antagonism between pathogens and microbes from the human microbiome, which grew into a study aiming to find a new antibiotic. What started as a required task grew into a fascination, then grew into a passion. I’m very glad that I asked for Dr. Stierle’s help that year, since she helped me get where I am today.”

The *Newsletter* congratulates this year’s winners. Next year, the ISEF will be in Los Angeles, California, in May, 2011. ■

Earthquake Impacts ASP Members

Editor's Note: Although we call ourselves the "American Society of Pharmacognosy", we are really an international organization, with members in numerous countries throughout the world. We were saddened and concerned by the news of the two major quakes recently in Haiti and Chile. The quakes have preoccupied people considerably, and are certainly the greatest tragedy that both countries have experienced in recent times. We invited Mr. Goity to write about this experience, and its impact on pharmacognosy research in Chile, and are pleased to share his article in the ASP Newsletter. If there are other ASP members from Chile or Haiti, or if you have first-hand experience in these countries, we would like to hear your stories about how these tragedies have impacted pharmacognosy.

by Mr. Leon Goity

The 8.0 earthquake that woke Chile on February 27, 2010, reminded us that our planet is alive and living in a seismic country. This means that we must expect this type of natural phenomena every certain amount of years. These days, we have seen the complete devastation many cities suffered in southern lands, and every aftershock generates stress and a sour memory for many distraught people. Many reflections have come to my mind after experiencing these events: our planet is changing and many people think it is a result of the human presence in the world. Others say that it is simply normal processes the planet has to go through.

However it is, there is a fact: nature is calling for attention and we must take care of it. All the work we do in pharmacognosy, all the information we provide to the world must be emphasized today more than ever, and making the world understand that our plants, and our biodiversity represent a rich source of health and human prosperity, is to hope that our work will incentivize nations to promote protection politics.

I have been working in the area of pharmacognosy since the last three years of my undergraduate studies of Pharmacy at Universidad de Chile. I have been working on my doctoral thesis for the past two years, studying the chemistry and pharmacology of a native Chilean species as an important source of antioxidant, anti-inflammatory and glucose metabolism-modulating compounds.

The building of our University where



Leon Goity (left) and his thesis advisor Dr. Carla Delporte (right), ASP member

the natural products laboratory is located, is considered a national monument. It was built over 200 years ago and has withstood several earthquakes including the one that occurred in 1985, registering 7.5 in Santiago. Fortunately, this was the exception and we did not suffer major loss. Nevertheless, some colleagues working in other buildings have seen their research altered for the resulting condition of their laboratories, and have had to find strategies such as temporarily setting their experiments in labs like ours to keep studying while theirs are repaired.

Answering the question about what ASP could do professionally to help scientists in Chile, I can say that the most important support the pharmacognosy investigation can receive is the international interest in our research, because the more we publish and attend scientific meetings the more the world can understand what we do and the more importance it might have for our future.

I sincerely appreciate your care and I take the chance to congratulate all the work that is been done in the Society. As a young scientist, it is very important to see that in our scientific field there is a lot in common no matter where in the globe we are. ■



DAVID ARAVENA

Above: Building of the Pharmaceutical and Chemical Sciences School of the Universidad de Chile where Goity's lab is located. This building is over 200 years old and has resisted several earthquakes, including 1985 and 2010, two of the strongest Santiago has experienced in recent decades.

Left: *Ugni molinae* leaves, native plant and rich source of bioactive compounds being studied for their antioxidant, anti-inflammatory and hypoglycemic properties.



LEON GOITY

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.

Banff Conference on Plant Metabolism 2010

Banff Centre, Banff, Alberta, Canada

June 24-28, 2010

www.ucalgary.ca/plantmetabolism2010

The XIV International Congress

“Phytopharm 2010”

St. Petersburg, Russia

July 1-3, 2010

www.adaptogen.ru/phyto2010.html

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

58th International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research

Berlin, Germany

August 29-September 2, 2010

www.ga2010.de/

11th Congress of the International Society for Ethnopharmacology

Albacete, Spain

September 20-25, 2010

www.ise2010.org



New Members of ASP 2010

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 five domestic full members, four international full members, and three associate members. We look forward to meeting you and learning more about you and your work.

FULL MEMBERS

Mr. Douglas J. Trainor
Phoenixville, Pennsylvania

Dr. Chih-Chuang Liaw
Taichung, Taiwan

Dr. Jiangnan Peng
San Antonio, Texas

Dr. Hala Gobran Schepmann
Ashland, Oregon

Dr. Ryan M. Van Wagoner
Salt Lake City, Utah

Dr. Ya-Ching Shen
Taipei, Taiwan

Dr. Dmitriy S. Kruglov
Novosibirsk, Russia

Dr. Ozlem Demirkiran
Edirne, Turkey

Tiaying An
Springfield, Missouri

ASSOCIATE MEMBERS

Mr. Domonkos Feher
Honolulu, Hawai'i

Geping Cai
Chicago Illinois

Michael J. Caspers
Lawrence, Kansas



Meet a New ASP Member

by Dr. Diane S. Swaffar

ASP continues to welcome many new members to the Society throughout the year. We are especially pleased to feature new member, Dr. Ryan Van Wagoner. He was recently appointed to oversee the research activities of Dr. Chris Ireland's lab at the University of Utah. After a very successful academic research career of over 30 years, ASP member and former ASP President Dr. Chris Ireland recently became the new Dean of the College of Pharmacy at the University of Utah. Dr. Van Wagoner is a former student of Dr. Ireland and is looking forward to helping Dr. Ireland maintain his productive research activities. We appreciate the opportunity to get more acquainted with him and also extend congratulations to Chris!

How did you hear about the ASP?

I have actually been aware of the ASP since I was a graduate student. My first interaction with the ASP was when I attended the 1997 conference in Iowa City which was organized by Jim and Kathy Gloer.



JASON REPPART

Dr. Van Wagoner by the Ireland group's mass spectrometer

Do you belong to any other scientific societies?

Yes, I am also a member of the American Chemical Society and the American Society for Mass Spectrometry.

Why did you join ASP?

The ASP has been a key organization in promoting natural product research through its various excellent meetings and its interactions with the *Journal of Natural Products*. As I started a new position with a focus on the core activities of pharmacognosy, I thought that joining the ASP would be a great way to link to a community that has been vital in raising the profile of natural products research.

What are your current research interests in pharmacognosy?

Our group focuses on the isolation and identification of natural products possessing biological activity with potential therapeutic benefit. In addition, we collaborate as part of an International Cooperative Biodiversity Group that explores plants used as traditional medicinals in Papua, New Guinea.

What is your scientific background?

I received my B.S. in Chemistry at the University of Utah, where I also stayed on for my doctoral studies under Dr. Chris Ireland in the Department of Medicinal Chemistry, studying marine natural products and

the structure and activity of conotoxins. I did my postdoctoral work with ASP Dr. Jon Clardy at Cornell University and later Harvard Medical School characterizing the structure and function of a protein encoded by a biosynthetic gene cluster from soil environmental DNA. I then joined the MARBIONC program at the University of North Carolina at Wilmington (UNCW) as a group leader working under Drs. Jeff Wright and Dan Baden. At UNCW I studied the structure and biogenesis of natural products from marine dinoflagellates in addition to helping to develop a marine biotechnology program based on a collection of culturable marine phytoplankton.

What would you like to achieve through your membership?

I hope to stay abreast of current developments in the study of natural products and to contribute however I can to the ASP's mission of keeping natural product research at the forefront.

What do you like doing in your spare time?

My hobbies include playing the guitar, computer programming, and reading wild conspiracy theories on the Internet.

What are you currently reading?

I am currently reading *Little Dorritt* by Charles Dickens and *C++ Primer*. I am also reading *Harry Potter and the Half-Blood Prince* with my daughter Sophie. ■

Behind the Scenes in Pharmacognosy

“Peptides in Action”

by Amy Keller

In the Drs. John W. Daly and Richard E. Moore honorary issue of the *Journal of Natural Products*, the article entitled “Functional Characterization of the Cyclomarin/Cyclomarazine Prenyltransferase CymD Directs the Biosynthesis of Unnatural Cyclic Peptides” by Andrew W. Schultz, Chad A. Lewis, Michael R. Luzung, Phil S. Baran and Bradley S. Moore appeared. The *Newsletter* interviewed ASP Member and corresponding author Dr. Moore, who generously told us more about the lab and research. This article is dedicated to Dr. Moore’s father, the late Dr. Richard Moore.

How did you become interested in bioactive compounds of marine origin?

I became very interested in marine chemistry growing up in Hawai’i, where my family spent most of our free time at the beach. Hence, I grew up in and around water and became fascinated with marine life. And since I gravitated towards chemistry as a high schooler, it seemed a natural fit to explore the chemical language of marine life.

Plus, it did not hurt that my father, the late ASP member Dr. Richard E. Moore, to whom this research article is dedicated, was one of the pioneers in the field. I had the opportunity to work in his laboratory at the University of Hawai’i as an undergraduate, where I was introduced to natural product chemistry. My interests then drifted towards how these complex natural organic molecules were biosynthesized, which led me away from marine systems in my graduate and post-graduate training until I returned to explore marine questions independently as a new investigator starting in 1997.

Who in your laboratory carried out the research?

This particular study was headed by Andrew Schultz, who is a talented fifth year graduate student in my lab looking to graduate later this year.

Could you provide a brief explanation of the work and results in your own words? In what way are the data in your paper new?

Drew discovered a couple years ago that the marine bacterial cyclic peptides cyclomarazine and cyclomarin are related di- and heptapeptides exclusively derived from the same nonribosomal peptide synthetase assembly line that detects a difference in oxidation of a common enzyme-bound dipeptide intermediate that leads to these two differently sized cyclic peptides.

The priming amino acid residue in both peptides is a reverse N-prenylated tryptophan that is unique amongst bacterial natural products. Due to the novelty of this amino acid residue, Drew explored its biosynthesis which, to our surprise, led to the dis-

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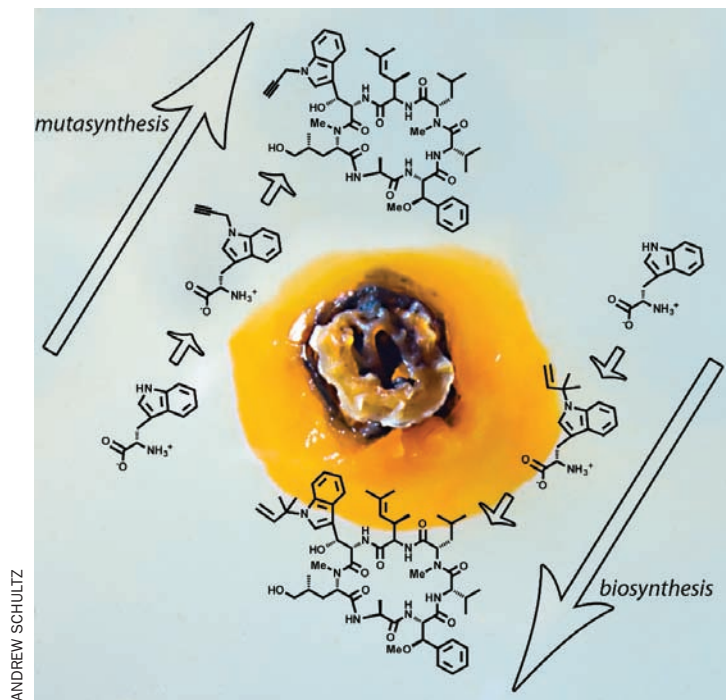
Moore Research Group at the Scripps Institution of Oceanography: Bradley Moore, Peter Bernhardt, Michael Wilson, Tobias Gulder, Andrew Schultz, Andrew Kale, Tatsufumi Okino (on sabbatical from Hokkaido University), Akimasa Miyanaga, Alexandra Roberts, Anna Lechner, Kaity Ryan, Taylor Stratton, Larissa Dirr, Elisha Fielding, Amy Lane, Alessandra Eustaquio (pictured from L to R). Missing: Roland Kersten and Kari Potter.



ANDREW SCHULTZ

Behind the Scenes: “Peptides in Action”

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The biosynthesis of the cyclic heptapeptide cyclomarin A in the marine actinomycete bacterium *Salinispora arenicola* involves the preassembly of the nonproteinogenic amino acid residue *N*-(1,1-dimethyl-1-allyl)tryptophan by the action of the *CymD* prenyltransferase. Genetic inactivation of the *cymD* gene resulted in a mutant bacterium devoid of natural cyclomarin biosynthesis that facilitated the mutasynthesis of unnatural cyclomarin analogues from synthetic precursors such as *N*-(1-propargyl)tryptophan.

covery of the prenylating enzyme *CymD* that prenylates tryptophan with dimethylallyl pyrophosphate prior to peptide assembly versus post peptide synthesis, our initial hypothesis! The early timing of prenylation was fortuitous as it allowed us a very convenient strategy to bioengineer new peptide analogues with altered *N*-alkyl tryptophan residues.

This is where we entered into a very fruitful collaboration with co-authors Dr. Phil Baran of neighboring The Scripps Research Institute (TSRI) and his postdocs Drs. Chad Lewis and Mike Lu-

zung who developed a clever synthetic strategy to conveniently prepare tryptophan analogues. Drew genetically inactivated the *CymD* encoding gene that resulted in a mutant strain unable to produce the native cyclomarins and cyclomarazines. He could then rescue the wild-type phenotype by supplementing the mutant with the Baran lab's synthetic *N*-dimethylallyltryptophan as well as redirect biosynthesis to unnatural cyclic peptides by adding other *N*-substituted tryptophans such as the propargyl analogue that gave rise to the production of unnatural propargylated cyclic peptides. This approach combining the strengths of organic synthesis and biosynthesis nicely highlights their powerful synergy in generating focused natural product libraries that are difficult to produce by either approach alone.

What impact does this research have?

This research project extends our biosynthetic understanding of nonribosomal peptide synthetase modifying reactions and adds a new coupling enzyme to the bioengineer's toolbox for the combinatorial biosynthesis of designer molecules.

What is a favorite nonscientific activity of your lab?

Being at the Scripps Institution of Oceanography, which is located at one of the best beaches in Southern California; our favorite activities are ocean-related sports such as surfing, kayaking, and ocean swimming. Many of the students and postdocs have surfboards in their offices and can occasionally be found in the water considering their next experiment.

Each summer our lab hosts a beach party at Scripps for the UCSD marine natural product research groups. We've named the event the "Pier Swim" since we start off the gathering with a collegial swim around the Scripps Pier, where the point is to get everyone around in a safe and fun way. We then have a large barbeque feast and play lots of beach games. It's a fun way to unwind, build new friendships and even plan new joint group projects.

What is your lab's motto?

Work hard and play hard. I really have a very dedicated and talented research group who, importantly, know how to have a good time.

What is your greatest extravagance in the lab?

Our "greatest extravagance"... well, we work in a building located directly on a beautiful beach. What more can one ask for? So, whether or not you surf or swim, we all enjoy watching the daily surf action, the occasional whale sightings, and the beautiful sun sets from our laboratory and office windows. ■

Brief News From Washington



by Dr. Georgia Perdue

➤ On May 17, the President quietly appointed **Dr. Harold Varmus** to be the **new NCI Director** beginning July 12. A former NIH Director, Dr. Varmus was president of New York's Memorial Sloan-Kettering Cancer Center. He also is a Nobel laureate. The announcement caught NCI staff by surprise. NIH director Dr. Francis Collins, said "... [Dr. Varmus] brings unmatched expertise at all levels..." It is also unprecedented to have a former NIH director return to head an NIH institute. Dr. Varmus had been appointed as co-chair of the President's Council of Advisers on Science and Technology (PCAST) and had been a close adviser to the President.

➤ At the June 4 **National Center for Complementary and Alternative Medicine (NCCAM) Advisory Council meeting**, Director Dr. Josephine Briggs noted that NCCAM's 2010 budget is \$128 million; the 2011 budget might be \$132 million. The Center has committed all of its \$32 million ARRA funds to research grants, including Challenge and GO grants and some supplements. The Center hopes to award nine SBIR/STTR grants this year. Dr. Briggs noted that fewer grants will be awarded in 2011 because of an expected considerable drop in the budget. One shift will be awarding more R01s than R21s because R21s "are not quite as productive." Dr. Briggs also mentioned that NIH Director, Dr. Francis Collins, organized a meeting, BIG THINK, which included 40 outside scientists. One topic of great interest was **why the drug development pipeline has a low success rate**. Council member Dr. Stephen Barnes pointed out that China is investing billions to identify the active ingredients in the natural products used in Chinese medicine, which he believes will result in U.S. Pharma getting left way behind.

➤ The **GAO** issued a **report** on May 26, *Herbal Dietary Supplements: Examples of Deceptive or Questionable Marketing Practices and Potentially Dangerous Advice* (Available on Internet, GAO-10-662T).

➤ In late February, the **Food and Drug Administration (FDA)** and the **National Institutes of Health (NIH)** announced a **new partnership to speed up the process of making new therapies available**. HHS Secretary Kathleen Sebelius hopes treatments will be delivered "faster and safer..." NIH Director Dr. Francis Collins called it "... an unprecedented opportunity ... to catalyze new therapeutics to get them to the public. The need for such a collaboration has never been more pressing." Dr. Collins pointed out that NIH is now funding four high-throughput centers which academia can take advantage of to identify new molecules. "In

the last four years **128 compounds have been identified**" each with some degree of promise as treatments for various diseases, including rare diseases. Some, intended to be used in combination therapy, make it difficult to assess for safety. "We want to work to de-risk compounds so industry will be more interested," said Dr. Collins. "Complexities lie ahead in the pipeline to get compounds to trials.... The science of regulatory medicine needs more energy." Dr. Hamburg, FDA Commissioner, said "regulatory science is the bridge between biomedical discoveries and new medical products." A six-member council of scientists from both agencies, will make up the new **Joint NIH-FDA Leadership Council**, co-chaired by Drs. Collins and Margaret Hamburg, to make "the connectivity [between NIH and FDA] even more effective," said Dr. Collins. "We want to take the great breakthroughs from the labs and translate them into triumphs" Also, **\$6.75 million in grants, through joint FDA/NIH RFAs**, will be available over the next three years for research on regulatory science to best assess the risks and benefits associated with certain treatments. Both FDA and NIH will reach out to private and nonprofit organizations to help bring new medicines to market. There will be a public meeting to solicit input on how the agencies can better work together.

➤ On May 12, the Institute of Medicine (IOM) released a report entitled *Evaluation of Biomarkers and Surrogate Endpoints in Chronic Disease*. Among its many recommendations was one that FDA "use the same degree of scientific rigor for evaluating biomarker use across all areas including **foods and dietary supplements**" (bold added for emphasis). It also calls for Congress to enhance FDA's ability to study how to more rigorously communicate claims on packages, to consumers. The report was requested two years ago by FDA's center for Food Safety and Applied Nutrition. Full report available from www.nap.edu

➤ On April 25, World Malaria Day, the stark realities of the disease were highlighted by the National Institute of Allergy and Infectious Diseases (NIAID) which is actively involved with many worldwide organizations, especially the Millennium Development Goal, to halt the spread of malaria by 2015. It is now recognized there are five species of the parasite *Plasmodium* spread by as many as 40 species of *Anopheles* mosquito. In Southeast Asia, **artemisinin resistance** is a problem, which could become more widespread. The ideal solution is an effective malaria vaccine. NIAID expects to make its first awards of its newly created **International Centers for Excellence in Malaria Research** program aimed at expanding international basic and clinical research in malaria endemic areas. NIAID will continue to pursue its private-public partnerships to take basic research results and transform them into new or improved interventions.

➤ The National Cancer Institute's National Cancer Advisory Board (NCAB) has formed an **ad hoc Working Group**, including at least 20 members of academia, industry and public advocacy groups, "to review NCI's current operating structure, assess the

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From the Archives

by Ms. Anna Heran

In 1893, the United States Postal Service (USPS) issued its first commemorative stamp honoring the World Columbian Exposition in Chicago. Flash forward nearly 80 years and a few hundred commemorative stamps later, and you get to 1972 and the November release of the 8¢ stamp honoring the work of pharmacists and pharmaceutical researchers. The USPS fact sheet that accompanied the stamp also included several vignettes that were illustrative of the research that goes into good pharmacy. The stamp was designed by artist Ken Davies, now of Connecticut, who several years later designed a stamp for the American Chemical Society's centennial.

So, why am I writing about stamp history in a piece for ASP? Well, I could say it was a tribute to Dr. Varro Tyler, who was a well-known expert on stamps, a hobby he pursued vigorously as much as he did his work in pharmacognosy. And, while that might be reason enough, it would be a lie. In fact, I am writing about this because in the boxes of ASP material I received from the Society, there is a plaque with a cancelled stamp from the first day of issue



(November 10, 1972, Cincinnati, Ohio) of the Pharmacy Commemorative stamp. Although that box contains a brief list of contents, there is no apparent mention of this plaque. So, I'm hoping to pick your collective brains to find out how ASP received it. I poured through the minutes and correspondence from 1971 through 1973 for the Society and still no answer. I also know that some materials were borrowed from Dr. Tyler's materials before they arrived at the Lloyd Library & Museum and the plaque could have been part of his materials that were returned – all speculation on my part.

Nonetheless, it is a curious addition to the collection and something worth sharing. If you have any information about the origination of the plaque, please pass it along to archivist@lloydlibrary.org, or call 513-721-3707 and ask for Anna. Thanks and Happy Summer!

Information about the stamp was derived from www.stamp-prof.com/cp/cp005.jpg, accessed 5/26/10. Information about Ken Davies derived from his website, www.kendaviesart.com, accessed 5/26/10. ■

Brief News From Washington

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effectiveness of its scientific programs and business management structure and determine any gaps and opportunities for delivering scientific progress in understanding, diagnosing, treating and preventing cancer." NCI director Dr. John Niederhuber wants the Group "to look forward to how best support or structure the NCI to continue to maximally lead the national cancer program ... and ... the NCI." The four chairs include Bruce Chabner, former director of NCI's old Division of Cancer Treatment, Dr. Robert Ingram, former head of GlaxoSmithKline, philanthropist and engineer Mr. Bill Goodwin and Mr. Philip Sharp a former chair of the NCAB. The working group will review the 40-year old National Cancer Act, signed by President Nixon when he declared the "War on Cancer," which held out great promise for eradicating cancer and provided an enormous infusion of money to the NCI. It also marked the **great expansion of NCI's natural products program** including plant collections in collaboration with USDA, headed up by Dr. Robert E. Perdue, Jr. **The Act gave NCI many privileges and special authorities such as the presidential appointment of the director not given to other NIH institutes.** A report is expected in the fall.

➤ At the annual ritual of appropriations hearings on Capitol Hill each spring, NIH Director Dr. Francis Collins testified before the **House subcommittee on Labor, HHS and Education** chaired by

Rep. David Obey D-WI) (who shocked the Hill in early May by announcing his retirement). In his statement Dr. Collins noted that former NIH Director Dr. Elias Zerhouni warned that "our biomedical research effort is in a race we cannot lose." "Science is not a 100-yard dash," added Dr. Collins. "It is a marathon... run by a relay team [including] researchers, patients, industry experts, lawmakers and the public." Lawmakers' interests include childhood cancers, pancreatic cancer, and breast cancer screening.

➤ NCI's Dr. David Newman, and Dr. Carole Bewley, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), presented a **Primer on Natural Products**, part of the Demystifying Medicine 2010 series at NIH's **FAES (Foundation for Advanced Education in the Sciences)** Graduate School. Dr. Bewley dealt with antibiotics; Dr. Newman covered antitumor agents and agents for other diseases. Courses at both the undergraduate and graduate level are offered each year. This presentation is available on www.videocast.nih.gov

➤ A "promising" marine-derived drug, an **epothilone B analog, (Ixempra), is in a Phase II clinical trial for advanced cervical cancer.** This drug is already approved as a second line treatment for advanced breast cancer. Stay tuned. ■

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