



# THE AMERICAN SOCIETY OF PHARMACOGNOSY

THE ASP NEWSLETTER VOLUME 44 ISSUE 2

## ASP 49<sup>th</sup> Annual Meeting: Athens, Greece

by Dr. Nick Oberlies and Ms. Aristeia Varouhakis, a.k.a. Nick's Mom

Fellow ASP Members, I hope that your plans are coming together for the 49<sup>th</sup> Annual Meeting this summer in Athens, Greece. As of May 15<sup>th</sup>, I know that there have been over 1,200 abstracts submitted, so the meeting will be full of people and science from around the world. Several people have asked about day trips and sites to see in proximity to Athens. As I noted in an earlier *Newsletter*, some very good information can be found on the website [greektravel.com](http://greektravel.com). I highly suggest checking it out before you leave.

However, my mother, born Aristeia Varouhakis, is also a fountain of knowledge on this subject. Below is a list of 12 spots that she thought you might enjoy too, all essentially a day trip from Athens. I look forward to seeing many of you in Greece this summer. Yasou!

*continued on page 3*



### IN THIS ISSUE

#### Summer 2008

##### Features

- ASP 49<sup>th</sup> Annual Meeting 1
- ASP Mourns Passing of Members 1

##### Announcements

- ASP Interim Meeting a Success 6
- 2008 ASP Award Recipients 7
- Intel International Science Fair 7
- 2007 Schwarting and Beal Awards 8
- JNP Honors Dr. Pettit 9

##### Departments

- Editor's Corner 2
- Contributor's Information 2
- Conference Calendar 15
- Meet a New ASP Member 16
- Behind the Scenes in Pharmacognosy 17
- Brief News from Washington 18
- Membership Information 19

## ASP Mourns the Passing of Prominent Members

by Amy Keller

The ASP community is saddened by the recent loss of Drs. John Daly, Melvin Gibson, Albert Hofmann, and William Kelleher.

Among them, they were past ASP Presidents and Honorary Members, Research Achievement and Ernest Guenther Award winners, and outstanding contributors to the field of natural products research. Although their scientific interests spanned from the discovery of lysergic acid diethylamide (LSD) to the isolation of bioactive compounds from frogs, natural products science has been greatly enriched by their work as both scientists and mentors.

In this issue of the *Newsletter*, we invite you to take a closer look at the extraordinary lives and legacies of these scientists, as remembered by ASP members and friends.

In addition, and often complementary to their scientific endeavors, each scientist had unique interests and life experiences. Dr. Daly studied amphibians throughout his life, and Dr. Gibson served in World War II, earning the Bronze Star and Purple Heart. Dr. Hofmann read Baroque literature and enjoyed strolls in the forest, while Dr. Kelleher engaged in a variety of practical jokes involving his graduate students.

*continued on page 10*

## Editor's Corner



In this issue of the Newsletter, we look forward to an exciting 49th Annual Meeting hosted by our European counterparts in Athens, Greece. The organizers have received over 1,200 abstracts, and I hope a number of ASP members will be there. The Newsletter will cover the many scientific events that are planned. Thanks to the ASP representatives to this meeting, especially Dr. Nick Oberlies, for keeping members informed through the Newsletter and other venues.

We also have a wrap-up of the ASP-sponsored interim meeting in Oxford, Mississippi. Thanks especially to Dr. Troy Smillie for providing a number of articles to inform ASP members about this interesting meeting

In this issue of the Newsletter, we mourn the loss of four prominent members of the ASP, Drs. John Daly, Melvin Gibson, Albert Hofmann, and William Kelleher. I consider comprehensive obituaries of members as an important service of the Newsletter as they provide an opportunity for the Society to recognize and honor members in a substantive way. I hope you will spend time learning about the extraordinary lives of these four ASP members.

I am pleased that ASP members continue to contribute articles for the Newsletter. The obituaries of Dr. Albert Hofmann by Dr. Otto Sticher, and Dr. John Daly by Dr. Carole Bewley are especially poignant since they were close friends and colleagues of the deceased.

Dr. Will Jones wrote the obituary of Dr. William Kelleher as part of the ASP history book that is being edited by Dr. Gordon Cragg. Dr. Kelleher's passing emphasizes the immediate need of completing a history of our almost 50-year-old society while we still have important early members with profound institutional knowledge of the ASP.

While we mourn the loss of these four members, we also celebrate the accomplishments of several members with relation to the official organ of the Society, the Journal of Natural Products. The 2007 Schwarting and Beal awards are announced by Editor Douglas Kinghorn. Also, the Journal's special March 2008 issue in honor of ASP member Robert Pettit is highlighted.

I would like to congratulate the ASP award winners at the Intel International Science and Engineering Fair, including Asanka Timothy Nanayakkara, and his proud father, ASP member Dr. Dhammika Nanayakkara. It is nice to see a new generation enthusiastic about pharmacognosy research!

In our regular columns, we meet new Associate ASP member (and my doctoral student), Adam Kavalier. Please forgive this apparent act of nepotism, and get to know this eager hop researcher. Dr. Roger Linington describes his work on chymotrypsin inhibitors in "Behind the Scenes in Pharmacognosy", and also divulges his greatest extravagance in his laboratory. Also, Dr. Georgia Perdue informs us about happenings in Washington, especially with regard to malaria research.

We did not publish "From the Archives" in this issue or the last. I encourage anyone with an interesting ASP-related photograph, and a story to tell about it, to contact me. We are looking for new archive story ideas, and I would appreciate your input.

## 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.phcog.org/employment.html](http://www.phcog.org/employment.html)

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# ASP 49<sup>th</sup> Annual Meeting: Athens, Greece

*continued from page 1*

## **Athens** itself:

- » Acropolis, Plaka, Syndagma (Constitution Square, Tomb of the Unknown Soldier, and Changing of the Guard)
- » Lykavito (mountain with sweet little church on top, cafe built into the mountain, one level below the highest point in Athens. One can see all of Athens below and can either walk up or take a cable car.
- » Many museums with a vast variety of antiquities.

## **Marathon** (approximately 27 km from the northern suburbs of Athens):

- » The plains here were the scene of the famous Battle of Marathon (490 BC), when the Athenians defeated the mighty Persians, and of course, the “messenger” ran to Athens to announce the victory before he collapsed from the exhaustion and died. Nowadays, it is just a town with several museums with antiquities from ancient times, parks, and a beach.

## **Delphi** (approximately 13 km inland from north coast of Gulf of Corinth, and 162 km west of Athens):

- » Mountainous region of Greece, surrounded by beautiful sites and lovely vistas. A very nice drive up too, or take the tour bus or coach (many heading up each day).
- » One of the major sights of Greece (famous for the Oracle of Delphi and a stone called Omphalos which marks the spot where Zeus’ two eagles supposedly marked the spot of the “center of the earth.”)
- » There is a great deal to see at Delphi, and it is worth reading about its significance ahead of time.
- » Sanctuary of Apollo and superb museum and theatre which dates to the 4<sup>th</sup> century BC. The Shrine of Tholos, ancient stadium, and our favorite, the beautiful Sanctuary of Athena.

## **Sounion** (approximately 67 km south-east of Athens, at end of main road along coast):

- » The Temple of Poseidon stands here, high above the Aegean (spectacular sight, Doric temple, built mid 5<sup>th</sup> century BC, and 16 of the original 34 columns still stand.
- » Mentioned by Homer and many romantic poets, including Lord Byron who carved his name in one of the columns.
- » The sea is all around, with crashing waves, and one can see some islands off in the distance.
- » Most spectacular at Sounion are the sunrises and sunsets. People come specifically to see the sunset. Drive or take tour bus or coach.

## **Vouliagmeni** (approximately 10 km south of Athens):

- » Just beyond the outskirts of Athens on the Apollo Coast.
- » Nice beach, resort, and restaurants, cafes, and tavernas.
- » There is also a small lake filled by a mineral water spring.

## **Aegina** (island directly opposite Athens):

- » Take ferry from Piraeus.
- » Lively harbor with many small and large boats, fishermen, cafes, restaurants, and shops.
- » Best beach is at Aghia Maria, approximately 14 km away on the east coast.
- » Temple of Aphaia and many ruins from 5<sup>th</sup> century BC.
- » Many small churches all around the island.
- » Greek writer Nikos Kazantzakis lived just north of the main harbor town, in Livadi, where he wrote Zorba the Greek.
- » Aegina could also be the first point of the Triple Island Excursion.

## If you wish to extend the Triple Island Excursion:

- » Take another boat to Poros (along the coast of the Peloponnese, another very charming island, lovely port, covered with fir trees, pleasant beaches, and 6<sup>th</sup> century BC Temple of Poseidon. The coast of the Peloponnese is across the harbor.
- » Then to Hydra, further out is a rocky, cliffy island, with no cars or motor bikes, known as an artist colony. Be careful of sea urchins as you climb down rocks to get into the ocean. The other side of the island has an actual beach.

*continued on page 4*

**Evia** (also spelled Euboea), second-largest Greek island:

- » Along eastern Greek coast, very close to Athens.
- » 150 km long, 20 km wide.
- » Supposedly “sliced-off” from the mainland by Poseidon.
- » Villages and small towns make for a lovely drive.
- » Unspoiled country-side, inland.
- » Along the sea there are resorts, beaches, and charming cafes and tavernas.
- » Village of Steni has mountain stream running through the middle of it.
- » Mount Oti may be walked or climbed (peak is above the waters of the Aegean).

Down in the **Peleponnese**:

**Corinth Canal:**

- » Links the Saronic Gulf with the Gulf of Corinth. The famous waterway cuts through the 6.6 km isthmus which joins the Peloponnese with the Greek mainland.
- » Stop by the banks of the canal and walk on the bridge -- spectacular view of the narrow canal (only 24 m wide), passing between the high vertical cliffs of the cutting.
- » Cruise lines pass through this, as well as smaller coastal craft.

**Epidavros:** center for the arts

- » 68 km south of Corinth, on the Argolida peninsula.
- » Magnificent outdoor amphitheater, dating back to 4<sup>th</sup> century BC, restored in 1954.
- » Seats 14,000 and acoustics remain as perfect today as they were back in the 4<sup>th</sup> century BC. Drop a penny at the center of the stage, and it can be heard at the very top row of seats. It is true, we’ve done this!
- » During the summer season, Greek tragedies are staged in Greek and sometimes English.
- » Also at site of Epidavros, there is a museum, an ancient gymnasium, dormitory, and ancient stadium with starting and finishing lines still discernible.
- » Also Tholos, a temple giving access to a labyrinth with walls still evident.

**Nafplio:** became the capital of the newly independent Greece in 1829

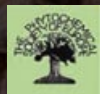
- » 66 km south of Corinth, at the head of the Argolic Gulf. This harbor city is a gem!
- » It sits on a peninsula, jutting out into the blue waters of the bay and is very picturesque.
- » Occupied over the years by the Turks and the Venetians, who have both left their legacies in the city’s architecture.
- » Best view of the city below is from the walls of the Palamedes Fort, which is on the hillside, 200 m above the sea. On the walls of the Fort, you can still see images of the Lion of Venice.
- » Nafplio is full of charming, narrow streets, outdoor cafes, tavernas, parks, beaches, and several small museums.
- » In 1834, the capital was moved to Athens, but Nafplio remains as very important to Greek history, and it has developed a special charm and ambiance.

**Kalamata:** not a very exciting town, but it produces superb olives

- » On the western coast of the Peloponnese.
- » Fields and fields of olive trees.
- » Open-air market where you can stop and get a can of olive oil and half kilo of the best olives Greece has to offer.
- » 3 km from the town center, you’ll find a number of beaches and beach-side tavernas.

Central Peloponnese also boasts several fine wineries, producing wine served in Greece and shipped all over the world.

South Peloponnese is quite tropical with palm trees and lovely beaches, resorts, and orchards. It is too far for day trips from Athens, but might be worth a look if one is interested in extending a vacation.



**7th Joint Meeting of AFERP, ASP, GA, PSE & SIF**

# NATURAL PRODUCTS

WITH PHARMACEUTICAL,  
NUTRACEUTICAL, COSMETIC  
AND AGROCHEMICAL INTEREST

**Athenaum Intercontinental  
Athens Greece, 3-8 August 2008**

## ASP Interim Meeting a Grand Success

by Dr. Troy Smillie

Thanks to the presenters and participants, the 7<sup>th</sup> Oxford International Conference on the Science of Botanicals (ICSB) and the 4<sup>th</sup> Interim American Society of Pharmacognosy meeting was a great success. The conference was held on April 12<sup>th</sup> - 16<sup>th</sup> 2007, at The University of Mississippi. This conference was co-sponsored by the Society for Medicinal Plant Research, (Gesellschaft für Arzneipflanzenforschung, GA), the Shanghai Institute of Materia Medica/CAS and the Council of Scientific and Industrial Research (CSIR-India) with representative delegations of scientists from various organizations in China, India, and Europe.

In addition, there were representatives from several well-known international organizations as both attendees and presenters. Overall, there were 52 presenters, 144 posters, and over 280 attendees at this conference. The abstracts for this conference have been published in *Planta Medica*, 2008, volume 74, pages 305-374 and are also available on line at [www.thiemeconnect.de/ejournals/toc/plantamedica/13345/grouping/13696](http://www.thiemeconnect.de/ejournals/toc/plantamedica/13345/grouping/13696). Currently, the ICSB website is being updated ([www.oxfordICSB.org](http://www.oxfordICSB.org)) to include PDF copies of available presentations.

There was also more than science occurring at this conference, with a well-rounded social program that started off with a warm welcoming reception, a lively poster session, tours of the National Center for Natural Products Research (NCNPR) research facilities and medicinal plant garden, a rousing Memphis blues excursion to BB King's on Beale Street with an exciting show from the Beale Street Flippers, and finally, an exceptional closing banquet.

At the closing banquet, Jose C. Aponte (University of Louisville), Yaupeng Hou (Virginia Tech), and Ayano Imai (University of Illinois, Chicago) were announced as the recipients of the Lynn Brady Travel Grant. The Nature's Sunshine Travel Award went to Tom Burdick (University of Illinois, Chicago), and the General Travel Grant for Graduate Students went to Eude Pan (Virginia Tech). The following graduate students received awards for their poster presentations, John Bowling (The University of Mississippi), Lukaz Kutrzeba (The University of Mississippi), Cassandra L. Quave (Florida International University), Prasanna Sivaprakasam (The University of Mississippi), and Nor Aini Saidin (Imperial College London). These events helped enhance the overall collegial interactions among all participants and made for an extremely enjoyable event.

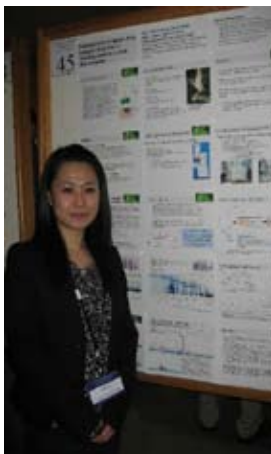
Many thanks to all ASP members who made this possible by providing your input and contributions to this program, and we look forward to seeing you at next year's conference, the 8<sup>th</sup> ICSB, that will be held in Oxford, Mississippi, on April 6<sup>th</sup>-9<sup>th</sup>, 2009 ([www.oxfordICSB.org](http://www.oxfordICSB.org)). Currently, the 8<sup>th</sup> ICSB is being co-sponsored by the Shanghai Institute of Materia Medica/CAS and the Council of Scientific and Industrial Research (CSIR-India).



Photos by Vaishali Joshi, James Lyles, and Yatin Shukla.

## 2008 ASP Award and Grant Recipients

Jose Carlos Aponte  
University of Louisville



### Lynn Brady Travel Awards

Yaupeng Hou  
Virginia Tech

Ayano Imai  
University of Illinois at Chicago

### Student Travel Award

Eude Pan  
Virginia Tech

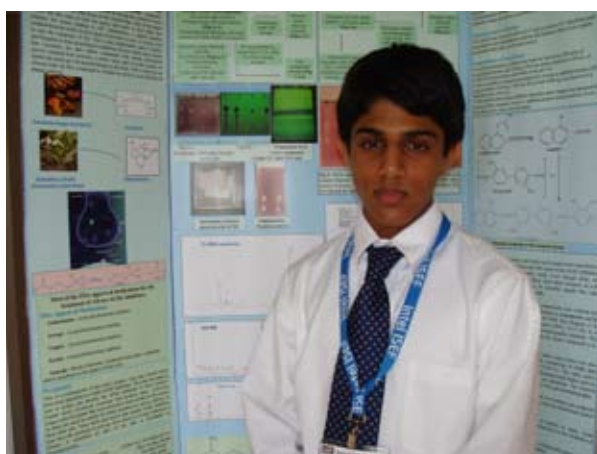
### Nature's Sunshine Travel Award

Tom Burdick  
University of Illinois at Chicago



## ASP Awards at Intel International Science and Engineering Fair

by Dr. Roy Okuda



Asanka Timothy Nanayakkara with his poster.

The Intel International Science and Engineering Fair (ISEF), presented by Agilent Technologies, on May 11-17, 2008 in Atlanta, Georgia, included three ASP-sponsored prize winners.

The winners of this year's ISEF are Pranali Hemant Dalvi, a 15-year-old International Baccalaureate at Bartow High School in Bartow, Florida, for a project entitled, "A Novel Approach for Detecting the Inhibitory Effects of Flavonoids," Asanka Timothy Nanayakkara, 16, a student at Mississippi School for Mathematics and Science in Columbus, Mississippi, for the project, "Acetylcholinesterase Inhibitors in Herbs as Treatments for Alzheimer's Disease," and Rebecca Renee Alexander, 17, a student at Grants High School in Grants, New Mexico, for her project entitled, "The Journey to Identify Antibiotic Compounds in New Mexico Lichens."

Mr. Nanayakkara, son of ASP member Dr. Dhammika Nanayakkara, noted, "The experience I gained while doing my research project on acetylcholinesterase inhibitors in herbs and spices and attending the

International Science and Engineering Fair was very rewarding. This research project showed once again that herbs and spices not only enhance the flavor of food but also have number of health benefits."

ASP sponsors awards for ISEF projects involving the study of natural products that are in any relevant category areas including animal sciences, biochemistry, cellular and molecular biology, chemistry, medicine, microbiology, and plant sciences.

This year's judges included ASP President Bill Baker, and ASP members Drs. Wendy Kelly, Lyndon West, and Roy Okuda.

# 2007 Arthur E. Schwarting and Jack L. Beal Award Winners

by Dr. A. Douglas Kinghorn

The *Journal of Natural Products (JNP)* is pleased to announce the 2007 winners of the Arthur E. Schwarting and Jack L. Beal Awards.

MIKE PAGE



*Aplidium Sp.*

The paper entitled, “Anti-inflammatory Thiazine Alkaloids Isolated from the New Zealand Ascidian *Aplidium Sp.*: Inhibitors of the Neutrophil Respiratory Burst in a Model of Gouty Arthritis” by authors A. Norrie Pearce, Elizabeth W. Chia, Michael V. Berridge, George R. Clark, Jacquie L. Harper, Leslie Larsen, Elisabeth W. Maas, Michael J. Page, Nigel B. Perry, Victoria L. Webb, and Brent R. Copp, has been awarded the Schwarting Award.

Corresponding author and ASP member Dr. Brent R. Copp noted, “It fills me with great pride to hear of this recognition of what was a very exciting project to work on. We brought together a multidisciplinary team of marine and cell biologists and chemists from around New Zealand with the aim of discovering new classes of anti-inflammatory agents. The project itself combined a gratifying number of aspects of natural product drug discovery including bioassay-directed isolation, natural product structure elucidation,

synthesis, and in vivo evaluation. We would like to thank the *Journal* editors and ASP for this award. It is always nice to be rewarded for having fun!”

The paper, “Parectadiol, a Monoterpenoid from the Defensive Spray of *Parectatosoma mocquersyi*”, by authors Aaron T. Dossey, Spencer S. Walse, Oskar V. Conle, and Arthur S. Edison was awarded the Beal Award. When asked to describe his impressions on the award, first author Dr. Aaron T. Dossey replied, “This is tremendous news. I am very honored and proud that this article was selected. I am very fortunate that Art [corresponding author Dr. Arthur S. Edison] has allowed me to pursue this very rewarding and promising project in his laboratory. This has been a very fun project and I believe represents how science should be. It is also rewarding to be able to assemble a team for a project based on our skill sets and work together to get a job done.”

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 *JNP*. In this manner, two former distinguished 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, such as persons within 12 years of receiving their Ph.D. degree or within 10 years of gaining their first professional appointment, for example, Assistant Professors or equivalent position in industry or government.

A two-tier process was used to determine the winners for papers published in the *JNP* in 2007, with editors and ASP members Drs. Daneel Ferreira, William H. Gerwick, A. Douglas Kinghorn, and Richard G.



AARON DOSSEY

Dr. Aaron Dossey and *Anisomorpha buprestoides*.

continued on page 14



RHYS FINLAYSON



Authors of the Schwarting Award winning paper: Drs. Vicky Webb, Mike Page, Norrie Pearce, Brent Copp, Nigel Perry, and Jacquie Harper (left to right).

## March 2008 Issue of the *JNP* Honors Dr. G. Robert Pettit

by Amy Keller

The March 2008 issue of the *Journal of Natural Products* was dedicated to Dr. G. Robert Pettit, ASP Fellow, to honor a prolific and distinguished career in natural products chemistry. The honorary issue contains 24 full articles, 10 notes, four contributed reviews, and an editorial tribute from three ASP members with a strong association with Dr. Pettit, Drs. Gordon Cragg, Richard Powell, and Sheo Singh.

Dr. Cragg notes, "Professor Pettit's career has been devoted to the discovery and development of novel and more effective anticancer agents from natural sources, and those of us who have collaborated with him know him as an outstanding and resourceful scientist totally committed to improving the treatment and quality of life of cancer patients worldwide."

Dr. Pettit's career began with a B.S. in chemistry in 1952 at Washington State University, followed by an M.S. in heterocyclic chemistry in 1954 and a Ph.D. in steroid chemistry in 1956, both at Wayne State University. His early research was focused on steroidal anticancer agents, and Dr. Pettit particularly targeted marine organisms as a source for anticancer natural products.

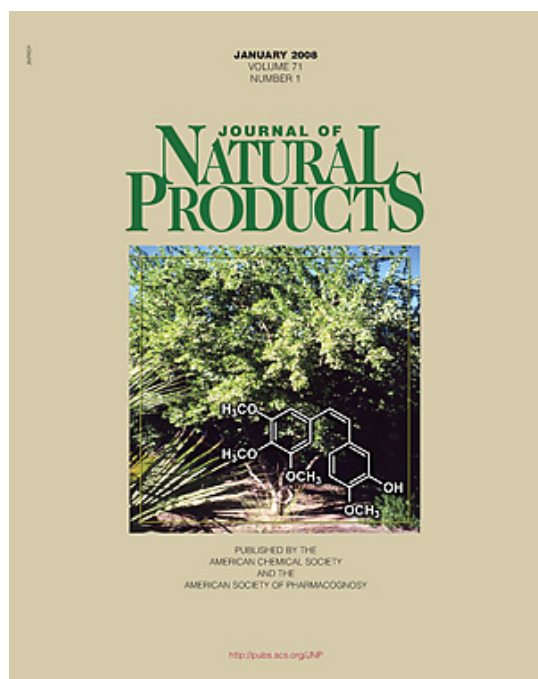
Dr. Pettit's work with anticancer compounds resulted in an ambitious career. Among his successful compounds are the bryostatins, isolated from the marine organism *Bugula neritina*, dolastatins and their analogues, isolated from the marine organism *Dolabella auricularia*, and a plant-based natural product, combretastatins, from *Combretum caffrum*, just to name a few.

According to Dr. Powell, "My association with Bob Pettit began in the late 1960s during various meetings convened by the National Cancer Institute to report on the progress of fractionation of natural product extracts that had demonstrated significant antitumor potential in several in vivo and in vitro screens. Cecil Smith, who had known Bob earlier as a post-doc in the laboratory of Carl Djerassi, and I were reporting on the isolation of various Cephalotaxus alkaloids including homoharringtonine. Bob was a member of the United States National Academy of Sciences Pharmacology Delegation to the People's Republic of China in 1974. In his report of that visit Bob mentioned that the Chinese were isolating quantities of the Cephalotaxus alkaloids sufficient for clinical trials as part of what was known then as the 'Great Leap Forward.' Our association has continued throughout the years, and I am deeply honored to have been a part of this most recent tribute to the monumental accomplishments of G. Robert Pettit."



HTTP://CHEMISTRY.ASU.EDU

Dr. G. Robert Pettit



Dr. Pettit also held numerous positions, including Senior Research Chemist at Norwich Eaton Pharmaceuticals in 1956, Assistant and later Full Professor at the University of Maine beginning in 1957, and Full Professor in the Chemistry Department at Arizona State University from 1965 to the present day. Dr. Pettit also directed the University's Cancer Research Laboratory from 1974-1975 and has been the Director of the Cancer Research Institute since 1975. He has authored or coauthored 10 book chapters, 14 books, and more than 700 papers, and been an inventor or coinventor on 58 patents.

Dr. Pettit's many awards and recognitions include the State of Arizona Governor's Excellence Award in 1993, the Research Achievement Award from ASP in 1995, the Ernest Gunther Award in the Chemistry of Natural Products from the American Chemical Society in 1998, and the Outstanding Investigator distinction from the National Cancer Institute.

Despite these and many other accolades, Dr. Pettit never lost sight of the big picture. According to Dr. Singh, "Bob Pettit is one of the most positive and enthusiastic persons I know. Discovery of anticancer agents is a religion to him. He never failed to remind us of our purpose: to work hard and find a cure for cancer."

*Drs. Gordon Cragg, Richard Powell and Sheo Singh contributed to this article.*

## In Memoriam: Dr. John William Daly

by Dr. Carole Bewley

On March 5<sup>th</sup>, 2008, we said goodbye to another hero when National Institutes of Health (NIH) Scientist Emeritus Dr. John William Daly passed away from complications with metastatic pancreatic cancer. “The ASP has lost another pillar with the untimely death of John Daly,” reflects ASP President Bill Baker.

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 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’s tenure with Dr. Witkop and the environment at NIH afforded him early opportunities that would influence his life’s research. Key among these were the rigorous training Dr. Daly received, under the tutelage of Dr. Julius Axelrod, in the pharmacology of neurotransmitters. At the opposite end of the spectrum, Dr. Daly received the assignment to travel to the rain forests of Columbia in search of the toxins being used by natives to poison their darts and arrows. Over the course of the next 40-plus years, Dr. Daly led a vibrant research program equitably integrating natural products chemistry, chemical ecology, and pharmacology. He and his colleagues made seminal contributions in each of these areas highlighted by the discoveries of epibatidine, a nicotinic receptor agonist, batrachotoxin, the active component of poison dart frogs from Columbia, and the use of the natural product forskolin to re-sensitize cell receptors.

Dr. Daly was always intrigued by the ecology of the alkaloids he studied, especially after discovering that when raised in the captivity of his office terraria, some frogs lost their poisons. Together with collaborator and ornithologist Dr. Jack Dumbacher of the California Academy of Sciences, and long-time colleagues Drs. Thomas Spande and Martin Garraffo, Dr. Daly’s group showed that the Pitohui bird of New Guinea, known for its toxic feathers, contained the frog-associated batrachotoxin and other related compounds. More recently, Dr. Daly and collaborator Dr. Ralph Saporito turned to the rain forests’ floors in search of a dietary source of the toxins. Remarkably, they have found frog-associated alkaloids in insects such as mites, ants and beetles.

Dr. Daly was a long-standing and active member of the ASP. Paying tribute to Dr. Daly’s legacy, President Baker notes, “among those long-associated with the Society, John stands out as one who contributed to the science, the governance and, perhaps most importantly, to the ambience of the Society, as he typified the careful, reflective intellectual who could tease out significance others might have missed.” 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.

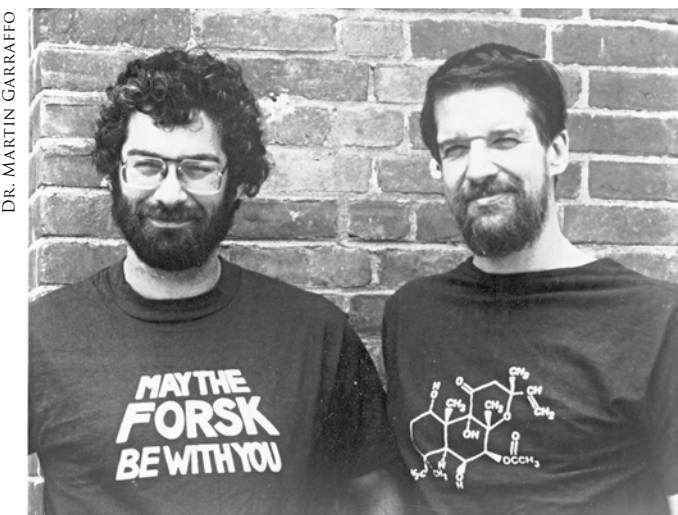
Author of over 700 scientific papers describing the structures and pharmacology of nearly 800 unique alkaloids, Dr. Daly was equally passionate about the obligations of being a scientist, with peer review and mentorship topping the list. Dr. Douglas Kinghorn, Editor in Chief of the *Journal of Natural Products* and past ASP President agrees. “John Daly was a great role model for natural products researchers at all levels, as a result of an abiding and infectious enthusiasm that never

*continued on page 14*



DR. RALPH SAPORITO

Dr. Daly with tubes in hand and ready for work in Panama.



DR. MARTIN GARRAFFO

Dr. Daly (right) with postdoctoral associate Kenneth Seamon in 1981.

## In Memoriam: Dr. Melvin R. Gibson

*Obituary provided by the family of Dr. Melvin R. Gibson*

Dr. Melvin R. Gibson, 87, "Gib", past president of ASP and a national figure in pharmacy education and professor at Washington State University for 36 years, died Thursday, May 15, 2008, in Spokane, Washington.

Gib was born June 11, 1920, son of John and Jennie Irene (Harvey) Gibson in the small Midwestern town of St. Paul, Nebraska, where he graduated from St. Paul High School in 1938. His interests were not wholly academic, with Gib playing trumpet, winning numerous music contests, and playing in a high school dance band, eventually as first-chair trumpet in the University of Nebraska Symphony. He then went on to receive a B.S. degree in Pharmacy from the University of Nebraska in 1942. As an undergraduate at the University of Nebraska, he was an ROTC cadet who rose to the rank of Major.

During World War II he served as a field artillery officer of the United States Army from 1942-1946. For his outstanding service and injury during his duty in Dutch New Guinea, he received the Bronze Star and the Purple Heart.

After completing his service in World War II, he returned to the University of Nebraska to obtain a M.S. degree in Pharmaceutical Chemistry. He left Nebraska in 1947 to seek a Ph.D. from the University of Illinois Medical Center in Chicago.

Dr. Gibson accepted an appointment as Professor of Pharmacognosy at Washington State University College of Pharmacy in 1949. He was later appointed Associate Professor from 1952 to 1955, when he was appointed Full Professor until his retirement in 1985.

In 1964, he became chairman of the American Association of Colleges of Pharmacy (AACP) Curriculum Committee, which undertook a landmark study on educational curriculum and suggested changes for pharmacy schools across the country. The same committee also produced a manuscript on the role of public health in a pharmacy curriculum, which led Dr. Gibson to launch an extensive three-year study recommending more emphasis on public health courses in colleges of pharmacy.

In 1962, Dr. Gibson served as a Senior Visiting Fellow for the Organization for Economic Cooperation and Development at the Royal Pharmacy Institute, now part of Uppsala University, Stockholm, Sweden, and at the University of Leiden, Holland. He also served as President of the ASP from 1964-1965, committee member of the United States Pharmacopeia Revision Committee from 1970 to 1975, and as board member and vice-chairman of the Board of Directors of the American Foundation on Pharmaceutical Education from 1980 to 1985.

In 1960 and again in 1977, Dr. Gibson was elected to the governing board of the AACP. Before completing his second term, he was elected president of AACP, a post he assumed from 1979 to 1980. During his administration, Dr. Gibson appointed a Special Committee on Aging and a Task Force for accrediting the new Doctor of Pharmacy (PharmD) college programs.

While Dr. Gibson's work with the AACP served as a catalyst for change in pharmacy education, the impact of his other accomplishments have had an equally dramatic effect. Dr. Gibson served as a co-author and editor of the widely used reference in pharmacy, Remington's Pharmaceutical Science, from 1965 until his retirement in 1985. His expertise in pharmacognosy, the study of medicinal agents derived from natural sources, earned him membership on the editorial boards of numerous professional publications and resulted in his authorship of more than one hundred published scientific articles.

In 1984, Dr. Gibson received the acclaimed AACP Pharmacy Educator of the Year Award, commemorating the numerous teaching awards and admiration of Dr. Gibson's peers for his teaching ability and style. Dr. Gibson was a fellow of the American College of Apothecaries, life-member of the Veterans of Foreign Wars, Sponsor member of the American Institute of the History of Pharmacy, member of the University of Nebraska Chancellor's Club and University of Nebraska's President's Club. He also was a 35-year member of the Spokane Athletic Club.

Dr. Gibson is preceded in death by his parents and a brother, Glenn. He is survived by the children of his brother, Jane Dubas and her family, Peggy Gibson, all of Grand Island, Nebraska, and Bill Gibson and his family of Loveland, Colorado.



FAMILY OF DR. MELVIN R. GIBSON

Dr. Melvin R. Gibson



## In Memoriam: Dr. Albert Hofmann

by Dr. Otto Sticher

Dr. Albert Hofmann, 102, Swiss chemist, father of LSD, honorary member of ASP and GA and Dr. h.c. mult. (ETH Zurich, Free University of Berlin, Royal Institute of Technology in Stockholm), died April 29, 2008, at his home in Burg, a village near Basel, Switzerland, four months after his beloved wife Anita.

ASP President Bill J. Baker noted, "The ASP has lost one of its best known and respected members with the passing of Dr. Hofmann. His major contribution to our field, the prolific discovery of natural products with medicinal uses, most famously LSD, is surpassed only by the positive public attention he brought, with grace and his singular gentlemanly style, to the field of natural products. His voice of reason and experience will be hard to replace as the role of natural products in therapeutic treatments continues to evolve."

Dr. Hofmann was born in Baden, a spa and industrial town near Zurich, on January 11, 1906. After a commercial apprenticeship he studied chemistry at the University of Zurich under the direction of Professor Paul Karrer, a future Nobel laureate. His doctoral thesis dealt with the structure elucidation of chitin, the cellulose-like structural material found in numerous classes of animals, such as insects and crustaceans.

After completing his Ph.D. thesis, he joined Sandoz in Basel in 1929, as he had a vivid interest in this company's research program of isolation and synthesis of the active principles from medicinal plants for the development of plant-based medicines. He worked in the pharmaceutical and chemical research laboratories of Sandoz until his retirement in 1971. He began as a coworker of Professor Arthur Stoll, became a group leader, and finally as head of the natural products department for the last 15 years of his career. His initial research at Sandoz involved the structural elucidation of cardiac glycosides from squill, *Scilla maritima*, and ergot alkaloids, *Secale cornutum* from *Claviceps purpurea*.

In the course of his research, he produced a number of highly successful pharmaceutical products, including Hydergine® (dihydroergotoxine), Methergine® (methylethergometrine), and Dihydroergot® (dihydroergotamine). In 1938, while working on the synthesis of ergot alkaloids, he isolated lysergic acid and synthesized a series of lysergic acid derivatives, including lysergic acid diethylamide (LSD). On April 19, 1943, Dr. Hofmann detected its psychotropic activity in a self-conducted experiment. His bicycle ride home from the laboratory on that day has passed into drug lore as the first LSD trip.

Subsequently he became world-renowned as the father of LSD. The discovery of LSD opened the door to psychopharmacology, and paved the way for the understanding of the biochemistry of the neurotransmitters serotonin and dopamine during the following decades. Later he isolated other psychoactive compounds such as psilocybin and psilocin from the Mexican sacred mushroom *Psilocybe mexicana* and identified the active constituents of "Ololiuqui", the Mexican vine *Rivea corymbosa*, which are closely related to LSD. Thanks to Dr. Hofmann's contribution in the area of medicinal chemistry, Sandoz not only enjoyed long-term commercial success but was also held in high esteem by scientists in pharmaceutical and medical circles.

After its discovery, LSD was viewed as a wonder drug with the potential to treat psychical problems including schizophrenia. Under the name of Delyside®, it was studied clinically for 10 years and showed great promise as a pharmacological aid in psychoanalysis. However, LSD not only elicited great interest among psychiatrists, but also became the preferred drug of hippie and other subcultures, and found expression in the fine arts and in music. The partially uncontrolled consumption led to a global ban of LSD in the 1960s, even of its use for therapeutic and scientific purposes. According to Dr. Hofmann, this decision was politically motivated rather than scientifically.

Dr. Hofmann is the author of more than hundred scientific papers and several books. The legendary story of the LSD discovery and the initial experiments in humans are vividly recounted by Dr. Hofmann in his book "LSD - mein Sorgenkind" (1979) which was translated into English as "LSD - My Problem Child" (1980). LSD was surely the most sensational of all compounds ever synthesized in Basel, and the most powerful psychotropic substance known. Since his retirement from professional life, he has devoted himself increasingly to philosophical reflections on the experience of nature, publishing a collection of essays "Einsichten- Ausblicke" (published in English as "Insight -Outlook") as well as an illustrated volume entitled "Lob des Schauens" ("In Praise of Contemplation").



Dr. Albert Hofmann

continued on page 14

## In Memoriam: Dr. William Kelleher

by Dr. William Jones

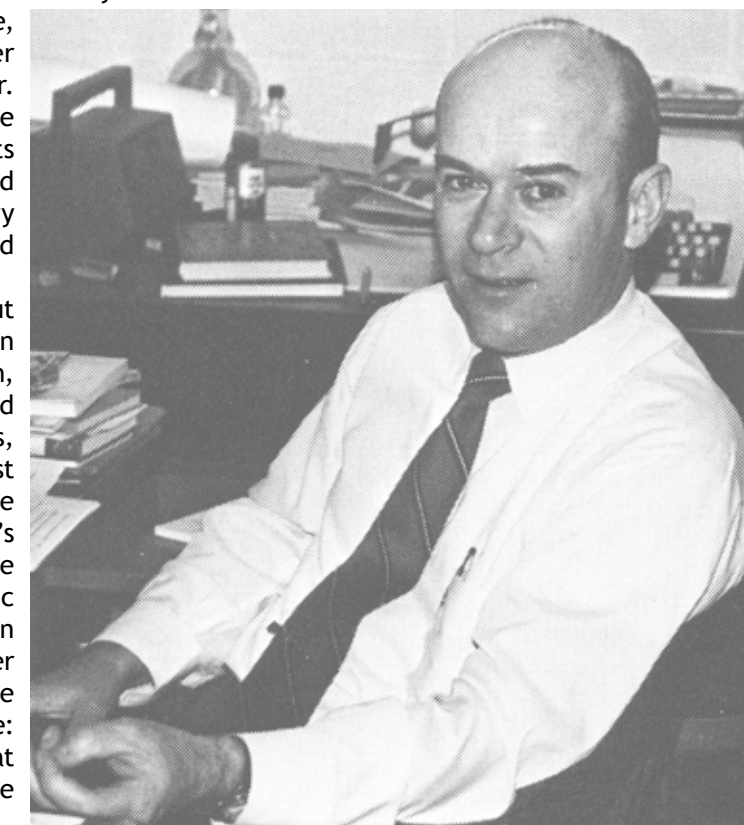
Dr. William (Bill) Kelleher passed away at 78 on November 10, 2007, after a brief illness. His passing is mourned by his former colleagues, students, and those who knew him through his involvement in the ASP, among others. Dr. Kelleher received B.S. and M.S. degrees from the University of Connecticut School of Pharmacy, and his Ph.D. from the University of Wisconsin (under Dr. Marvin J. Johnson, one of the pioneers of microbial and biochemical technology). Among Dr. Kelleher's many accomplishments, he served as the 14<sup>th</sup> president of the ASP (1973-1974). He was a professor of Pharmacognosy for 28 years at the University of Connecticut School of Pharmacy in Storrs, and, for part of that time, he served as Assistant Dean for Graduate Education & Research of the School of Pharmacy.

He had many collaborations within the College, including work with Dr. Arthur Schwarting. Dr. Kelleher also was known to work many long hours helping Dr. Schwarting with editing *Lloydia*, which later became the *Journal of Natural Products*. His main research interests were in microbial biochemistry, fermentation, and applied microbiology. Much of his work focused on the secondary products of *Claviceps paspali* (which produced lysergic acid derivatives), *Amanita muscaria*, and others.

Several members of ASP have shared stories about working with Dr. Kelleher, and it is clear that he was an outstanding mentor and stern taskmaster who took research, teaching, and training scientists very seriously. He also had a quirky sense of humor, loved to play practical jokes, and knew how to motivate students to make their best effort. Drs. Jack Rosazza and Bob Krueger were among the current members of ASP who benefited from Dr. Kelleher's instruction and example. Dr. Rosazza worked for him in the late 1960s on a project entitled "The production of lysergic acid derivatives in submerged culture: Inorganic nutrition studies." Despite what one might imagine about the inner workings of a laboratory engaged in such projects in the late 60s, Dr. Rosazza had this to say about the experience: "Anyone who worked with Bill realized very quickly that they would be held to the highest standards of performance and levels of accountability for everything."

Dr. Krueger worked on a research project under Dr. Kelleher's guidance for four years as an undergraduate in Pharmacy at the University of Connecticut, and he has numerous interesting tales about his time in Dr. Kelleher's lab. On one occasion, Dr. Krueger was trying to get permission to take Saturday off so he could attend homecoming events, and he was able to use a combination of well-crafted argument and a gift of good German sausage from his home in Wisconsin to convince Dr. Kelleher to let him take the day off. Dr. Kelleher was also known to check up on graduate students working late in the lab, once even, according to laboratory lore, he scaled the outside of the building to surprise the students by leaping through the third story window.

I leave you with a quote from Dr. Krueger that demonstrates Dr. Kelleher's dedication to students: "One last thought is that Dr. Kelleher helped me to arrange my schedule with the purpose of going to grad school. That meant substituting several non-pharmacy classes for required courses. When it came to going on to grad school he encouraged me to head out to another school. Not that he wouldn't have enjoyed working with me for my doctoral degree, but he felt that it would be best for me to experience another lab and the science in it. Well, I ended up in Iowa and worked with Drs. Dave Carew and Jack Rosazza. That's what is so neat about this society...the close relationships between its members and their unified passion for the science."



Dr. William Kelleher

UNIVERSITY OF CONNECTICUT



University of  
Connecticut

*Drs. Bob Krueger and Jack Rosazza contributed to this article.*

## In Memoriam: Dr. John William Daly

*continued from page 10*



Dr. Daly correcting manuscripts after a day in the field.

left him. At a regional graduate student symposium held at The Ohio State University in June 2006, John gave an outstanding keynote guest lecture and charmed the students and faculty alike. John was a staunch supporter of the *Journal of Natural Products*, and published a major review article recently with Drs. Spande and Garraffo, entitled “Alkaloids from Amphibian Skin: a Tabulation of Over Eight-Hundred Compounds” (*J. Nat. Prod.* 2005, 68, 1556-1575). This will long bear testimony to the outstanding scholarship in this area by John and his colleagues. As an Editorial Advisory Board member of the journal, he could always be relied on to make helpful and thoughtful comments and will be very greatly missed.

Dr. Michio Murata of the University of Osaka came to Dr. Daly’s laboratory as a postdoctoral fellow in 1999 “to work on the molecular pharmacology and receptor identification of a marine toxin, maitotoxin, the largest secondary metabolite and most toxic non-peptidic substance.”

Dr. Murata affectionately refers to Dr. Daly as a “big-hearted mentor”, and still marvels that Dr. Daly “made time for laboratory bench work including extraction of frog toxins in his small office room. He clearly enjoyed two different disciplines: natural products chemistry and molecular pharmacology.”

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”. Dr. Daly is survived by his life partner Kathleen McKnight and her two children, his daughters Kathryn Daly and Shannon Ostrander, and four grandchildren.

## In Memoriam: Dr. Albert Hofmann

*continued from page 12*

His fundamental credo is published in “Insight - Outlook”: “I believe that the significance of the natural sciences in the evolution of human society does not lie primarily in the fact that they provided the basis for the development of modern technologies and industries that have radically changed our lives and our planet, but rather in the fact that they can open people’s eyes to the wonder of creation and to the unity of all life on earth, of which humanity is a part. If this knowledge fully entered public consciousness, it could form the basis of a new spirituality and help to resolve our current spiritual, social and environmental problems.”

In 2007, Dr. Hofmann was elected by the readers of the English newspaper “Guardian” as one of the “world’s top 10 living geniuses”. In celebration of Dr. Hofmann’s 100<sup>th</sup> birthday on January 11, 2006, a book of a special kind “Grenzgänge” (“Exploring the Frontiers”) was written by his friends to pay tribute to the scientist and man. Dr. Hofmann was not only a scientist with a philosophical bent; he had also remained until the end of his life a cheerful and good-humored man. Everyone was impressed by his phenomenal knowledge not only of chemistry and physics but also of literature, music and arts in general. He enjoyed long, restorative walks in the woods around his beautiful house in the countryside, read books of baroque literature in the original, and corresponded with friends and colleagues around the world.

Dr. Hofmann was convinced that only physicians should handle LSD and other psychedelic drugs. He was deeply disappointed by the worldwide ban of LSD also in therapy and research in the 1960s. So, it is not surprising that he judged the approval in 2007 of an LSD study in Switzerland, the first trial in the past 35 years, as a fulfillment of a dream.

## 2007 Arthur E. Schwarting and Jack L. Beal Award Winners

*continued from page 8*

Powell having nominated two papers each for the Schwarting Award and one each for the Beal Award. ASP President Bill J. Baker appointed an ad hoc committee consisting of ASP members Drs. Yuzuru Shimizu, Chair, Ben Shen, and Barbara Timmermann to make the final selections.

The corresponding authors of these papers will receive a check and a plaque in honor of this achievement. The above-mentioned papers and those of all of the previous winners of the Schwarting and Beal Awards may be accessed freely from the home page of the *JNP*, <http://pubs.acs.org/JNP>. Congratulations to Drs. Copp, Dossey, Edison and to their co-authors!

# 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](http://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](mailto:asp.newsletter@lehman.cuny.edu).

## **Society for Economic Botany: 49<sup>th</sup> Annual Meeting**

Duke University, Durham, North Carolina  
June 1-5, 2008

[www.econbot.org/\\_organization\\_/index.php?sm=07|meetings\\_by\\_year/2008](http://www.econbot.org/_organization_/index.php?sm=07|meetings_by_year/2008)

## **International Training Program on Natural Products: Botanicals, Nutraceuticals and Medicinal and Aromatic Plants**

Rutgers University, New Brunswick, New Jersey  
August 11-15, 2008

[www.aesop.rutgers.edu/~newuseag/itp2008.htm](http://www.aesop.rutgers.edu/~newuseag/itp2008.htm)

## **Natural Products Discovery and Production II: Celebrating Successes of Traditional and Novel Cultures**

Whistler, British Columbia, Canada  
June 22-26, 2008

<http://engconfintl.org/8an.html>

## **Symposium on Medicinal Plants, Their Cultivation and Aspects of Uses Ash-Shoubak University College**

Ash-Shoubak, Jordan  
October 15-16, 2008

please contact: Dr. Mazen A. Ateyyat  
[ateyyat@bau.edu.jo](mailto:ateyyat@bau.edu.jo)

## **The 49<sup>th</sup> Annual Meeting of the American Society of Pharmacognosy/ 7<sup>th</sup> Joint Meeting of AFERP, ASP, GA, PSE, and SIF**

Athenaum Intercontinental Hotel, Athens, Greece  
August 3-8, 2008

[www.phcog.org/AnnualMtg/Athens.html](http://www.phcog.org/AnnualMtg/Athens.html)

## **50<sup>th</sup> Anniversary Meeting of the American Society of Pharmacognosy**

Honolulu, Hawaii  
June 27 - July 2, 2009

[www.phcog.org/AnnualMtg/Honolulu.html](http://www.phcog.org/AnnualMtg/Honolulu.html)

# Meet a New ASP Member

by Dr. Diane S. Swaffar

ASP welcomes several new members to the Society this year. We are pleased to feature our newest Associate member, Adam Kavalier. He is a fourth-year graduate student in the Plant Sciences Doctoral Subprogram of the Biology Department of the Graduate Center, City University of New York. We are grateful to him for giving us the opportunity to get more acquainted with him.

## Why did you join ASP?

I wanted to become further involved with the pharmacognosy community. My colleagues highly recommended the society, and of course, my advisor Dr. Ed Kennelly is an active member and the editor of this *Newsletter*. So, with some good advice on the side, I thought it was a great opportunity.

## When did you first learn of the ASP?

When I was an undergraduate student, I attended a meeting of the Society for Economic Botany and met several scientists, including Dr. Michael Balick and Dr. Kennelly. I was interested in their work and found out that they belonged to the ASP. I attended my first ASP meeting in the fourth year of my undergraduate studies.

## What was your background before joining Dr. Kennelly's lab?

I obtained a B.S. degree in Biology from the College of Charleston in Charleston, South Carolina. This is where I conducted undergraduate research using poplar, or cottonwood trees, as a model for the study of how plants communicate with insects using volatile signals during herbivory-stress related reactions. The experience was very inspiring and led me to seek further insight into the complexity of plant systems. I have been able to study this complexity further in Dr. Kennelly's lab because of the collaboration between the graduate program and the New York Botanical Garden, along with other CUNY resources.



Adam Kavalier with a ring tail lemur on a recent trip to Madagascar.

## What are your current research interests in pharmacognosy?

I am currently studying the medicinal properties of hops (*Humulus lupulus*). My studies include research into compounds with marked anti-cancer and phytoestrogenic properties. In particular, I am looking into the metabolomics of hops and how enzyme inhibitors affect the metabolic flux, in hopes of producing a model of hops in which anti-cancer compounds accumulate. My research involves metabolomics, gene expression, and the isolation and identification of biologically active compounds from hops. Although over 98% of the world's hops are currently produced for brewing purposes, we believe that the future may bring the production of hops to a new level with important medicinal uses, and one day most hops will be produced for medicine.

## What would you like to achieve through your membership?

I would like to be able to meet more scientists and conduct additional networking with investigators involved in similar areas of research. I also hope to increase my exposure to the area of pharmacognosy.

## Do you belong to any other organizations?

Yes, I am also a member of the Society for Economic Botany, the American Chemical Society, and Sigma Xi.

## What do you like doing in your spare time?

When I have spare time and can get out of the city, I enjoy biking, hiking, camping, and fishing. When I can't get out of the city, I enjoy reading and yoga.

## What are you currently reading?

When I'm not pile-high in hop literature, I enjoy reading personal favorites that address yoga, such as "Autobiography of a Yogi," or "Moving into Stillness."

# Behind The Scenes in Pharmacognosy

## Chymotrypsin Inhibitors and Mini Golf

By Amy Keller

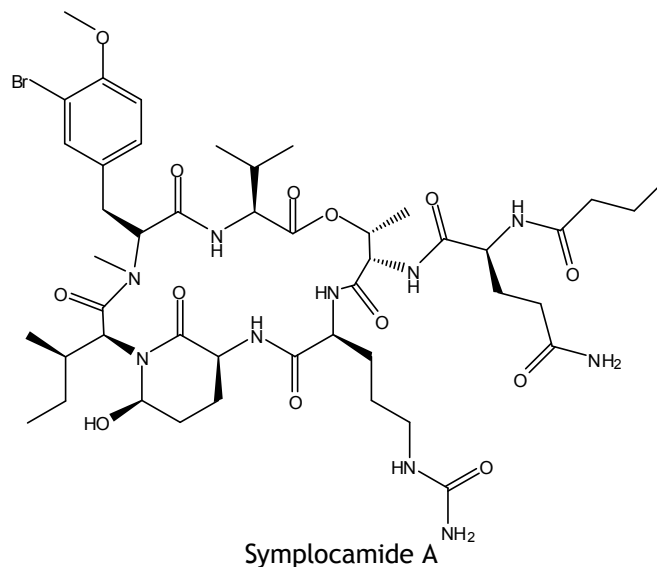
In January of this year, the article entitled, "Symplocamide A, a Potent Cytotoxin and Chymotrypsin Inhibitor from the Marine Cyanobacterium *Symploca* sp." by Roger G. Linington, Daniel J. Edwards, Cynthia F. Shuman, Kerry L. McPhail, Teatulohi Matainaho, and William H. Gerwick, appeared in the *Journal of Natural Products* 71st volume. The *Newsletter* interviewed first author and ASP member Dr. Roger Linington, who took time out his busy schedule to give us insight into an interesting study.

### How did you become interested in the natural products of marine organisms?

I was originally trained as a synthetic medicinal chemist, looking at natural products from the perspective of total synthesis. While in graduate school at University of British Columbia, I took a course on 2D NMR from ASP member Dr. Raymond Andersen and later applied to join his research program. My first project was looking for antimitotic agents from marine invertebrates, and from the moment I acquired my first crude NMR I was hooked.

### Who in your laboratory carried out the research?

This was a project completed while I was still a postdoc in ASP member Dr. Bill Gerwick's lab before I moved to University of California, Santa Cruz (UCSC) to start my own research program in July 2007. It was a combined effort between Dan Edwards, Cynthia Schuman and myself, with help from ASP member Dr. Kerry McPhail and Dr. Lohi Matainaho, and guidance from Dr. Gerwick.



### 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?

This work was part of an ongoing investigation into cancer cell cytotoxins from marine cyanobacteria. Symplocamide A is a new member of a large class of cyanobacterial metabolites, many of which have been shown to inhibit serine proteases. Symplocamide A is one of the most potent inhibitors of chymotrypsin in this class, and shows over 200-fold selectivity for chymotrypsin over trypsin *in vitro*. Because symplocamide A possesses a number of unique structural features never previously observed for this class of compounds, its discovery represents an important extension of the existing pharmacophore for peptidic protease inhibitors.

In addition to the chemical and biological evaluation of this new metabolite we also conducted an exhaustive

review of the structural features and biological profiles for all other natural products in this series. This provided us with a number of new insights into the SAR features that these compounds display, and highlighted the dramatic variations in biological activity that can be observed with only small variations in chemical structure.

### What is a favorite nonscientific activity of your lab?

Mini golf.

### What is your lab's motto?

Walk your own line.

### What is your greatest extravagance in the lab?

House nitrogen.



The Linington group (left to right): Roger Linington, Chad Renzelman, Chris Rundell, Navid Adnani, Laura Sanchez, Cecile Mioni, and Kelly Peach



## Brief News From Washington

by Dr. Georgia Perdue

News relating to malaria has been in the forefront, perhaps because of the commemoration of the first World Malaria Day on April 25, 2008.

☞ The Food and Drug Administration (FDA) will unveil in August its pioneering “**priority review vouchers**” to stimulate tropical disease research by any pharmaceutical company. The targeted diseases include malaria, tuberculosis, and African sleeping sickness (dengue fever). Under this plan, FDA will award companies that have approved medicines for any of these tropical diseases a voucher which can be sold or transferred. The companies that use the voucher will get an accelerated six-month review of any other drug the company develops; they will be required to pay a user fee to FDA. The idea was originally conceived by Duke researchers and came to the attention of Senator Sam Brownback (R-Kansas). Senator Sherrod Brown (D-Ohio) became a co-sponsor. The Senators added this provision into the “Food and Drug Administration Amendments Act,” (H.R. 3580), which was signed into law late last year.

This idea has earned the support of large pharmaceutical companies, biotech groups, and investors who anticipate this effort will stimulate research for these diseases.

☞ The wholly owned United States-based subsidiary, **Sigma-Tau Pharmaceuticals** (Gaithersburg, Maryland), part of the Italian Sigma Tau Group of Rome, has, in addition to its FDA orphan-drug status, gained similar status from the European Union for **artesunate**, its **malaria drug**, a semi-synthetic derivative of artemisinin. The company is developing artesunate in collaboration with the Walter Reed Army Institute of Research (WRAIR). Sigma Tau is also working with Medicines for Malaria Ventures to develop its drug, **Euratesim**<sup>®</sup>, a fixed-dose (artemisinin combination therapy - ACT) oral therapy for uncomplicated malaria. Euratesim<sup>®</sup> has been granted orphan-drug designation in both the United States and Europe and has recently completed Phase III trials.

☞ On World Malaria Day, the National Institute of Allergy and Infectious Diseases (NIAID) unveiled its **NIAID Strategic Plan for Malaria Research: Efforts to Accelerate Control and Eradication of Malaria through Biomedical Research**, which provides a long-term vision that links progress in malaria control to evolving research needs and priorities. NIAID Director Anthony Fauci and B.F. (Lee) Hall, Chief, Parasitology and International Programs Branch, Division of Microbiology and Infectious Diseases, noted that these efforts fall under the umbrella of “Global Research Needed to Address a Disease Without Borders” and that NIAID will continue to fund research to support basic, translational and clinical research “to develop the tools needed to prevent, treat and control malaria.” They also said that NIAID will continue to work collaboratively with the Fogarty International Center, United States Agency for International Development (USAID), World Health Organization (WHO), the Bill and Melinda Gates Foundation, the Malaria Vaccine Initiative and the Medicines for Malaria Venture. See [www3.niaid.nih.gov/topics/Malaria/PDF/ResearchAgenda.pdf](http://www3.niaid.nih.gov/topics/Malaria/PDF/ResearchAgenda.pdf) and [www3.niaid.nih.gov/topics/Malaria/PDF/ResearchAgenda/pdf](http://www3.niaid.nih.gov/topics/Malaria/PDF/ResearchAgenda/pdf).

☞ **Tuberculosis** remains in the spotlight. NIAID is accelerating its efforts to combat multidrug resistant tuberculosis (MDR) and extensively drug resistant (XDR) TB. Its efforts include defining the most effective use of existing TB therapies and other available antibiotics and to **develop new drugs, particularly to treat MDR and XDR TB**.

☞ FDA recently granted **Sirtris Pharmaceuticals, Inc.**, orphan-drug status for **resveratrol** for the treatment of the rare, fatal disorder, MELAS syndrome. The syndrome produces “mitochondrial myopathy, encephalopathy, lactic acidosis and stroke-like episodes.” Resveratrol activates the enzyme that boosts the number and function of mitochondria in cells. Based in Cambridge, Massachusetts, the biopharmaceutical company has begun a Phase I clinical trial with resveratrol. In late April, GlaxoSmithKline (GSK) announced it was acquiring Sirtris for \$720 million. Sirtris will become a part of GSKs Drug Discovery unit, but continue to operate its labs in Cambridge where its focus will continue on the discovery of small molecules to treat metabolic diseases and those of aging.

Stay tuned. The September column will include “Future Directions” for the National Institutes of Health (NIH) National Center for Complementary and Alternative Medicine and a new policy for the NIH peer-review process.

David J. Slatkin, Ph.D, Treasurer  
The American Society of Pharmacognosy  
3149 Dundee Road, #260,  
Northbrook, Illinois 60062

## ASP Membership

### Full Membership

Full membership is open to any scientist interested in the study of natural products. Dues are \$75 per year. In order to receive the Journal of Natural Products the subscription rates are as follows: United States, Canada, and Mexico: \$157 (Print Edition), \$70 (Web Edition), \$140 (Archive Web Edition); All other countries: \$247 (Print edition), \$70 (Web edition), \$140 (Archive Web Edition).

### Associate Membership

Associate membership is open to students of pharmacognosy and allied fields only. These members are not accorded voting privileges. Dues are \$25.00 per year. In order to receive the Journal of Natural Products the subscription rates are as follows: United States, Canada, and Mexico: \$98 (Print Edition), \$70 (Web Edition), \$140 (Archive Web Edition); All other countries: \$163 (Print Edition), \$70 (Web Edition), \$140 (Archive Web Edition).

### Emeritus Membership

Emeritus membership is open to retired members of the Society who maintained membership in the Society for at least five years. Dues are \$10.00 per year. These members receive the ASP Newsletter. Emeritus members may subscribe to the Journal of Natural Products at the Full Member rates.

### Honorary Membership

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

#### Present Honorary Members are:

- Dr. Arnold R. Brossi, National Institutes of Health • Dr. David P. Carew, University of Iowa
- Dr. John M. Cassidy, Oregon State University • Dr. Geoff A. Cordell, University of Illinois at Chicago
- Dr. Gordon C. Cragg, National Institutes of Health • Dr. Norman R. Farnsworth, University of Illinois at Chicago
  - Dr. Harry H.S. Fong, University of Illinois at Chicago
- Dr. James E. Robbers, Purdue University • Dr. E. John Staba, University of Minnesota
- Dr. Otto Sticher, Swiss Federal Institute of Technology • Dr. David J. Slatkin, Chicago State University
- Dr. Hildebert Wagner, University of Munich • Dr. Mansukh Wani, Research Triangle Institute

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,  
3149 Dundee Road, #260, Northbrook, Illinois 60062. Email: [asphcog@aol.com](mailto:asphcog@aol.com)

