PSNA News

Phytochemical Society of North America
Sociedad Fitoquímica de América del Norte
Société Phytochimique de L'Amerique du Nord

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President's Message

Clint Chapple

By any measure, the 2005 meeting of the Phytochemical Society of North America at the Salk Institute was an outstanding success… excellent scientific program with great colleagues in a beautiful location. Nevertheless, and as I outlined in my last letter to the members of the PSNA, I believe that our Society is at a crossroads, and based upon my discussions with other members of the PSNA Executive and Advisory Committees while at the La Jolla meeting, it is clear that most of them share this view.

What issues face the PSNA?

Our membership is not at critical mass for a number of reasons including the retirement of senior members among other factors. Indeed, our membership is not increasing at a time when plant biochemistry research is flourishing. Attrition of our membership can also be attributed to changes in federal funding priorities which have, over the past decade, turned away from some of the more traditional aspects of phytochemistry in favor of more molecular or integrative approaches. An additional and largely self-imposed problem is that there is a high turnover rate of Executive Committee members prescribed by the PSNA Constitution, and limited opportunities for involvement of membership in society affairs. This has made the organization of society meetings burdensome for the organizers and has resulted in limited long term planning of meetings. This lack of advanced meeting scheduling has in turn led to limited meeting attendance. Finally, the PSNA has a specialized focus within the broader arena of plant chemistry and biochemistry and does not have a well-defined agenda with regard to the promotion of the science of its members. As a result, the society has a low degree of visibility among a broader community of plant biochemists, and is not widely recognized as an influential force among funding agencies. All of these issues must be dealt with, and dealt with quickly, for the PSNA to become a vibrant society.

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2006 July 8- 12
Oxford, Mississippi

2007 Chicago, Illinois

2008 Banff, Canada

The Phytochemical Society of North America

The Phytochemical Society of North America (PSNA) is a nonprofit scientific organization whose membership is open to anyone with an interest in phytochemistry and the role of plant substances in related fields. Annual membership dues are U.S. $40 for regular members and $20 for student members. Annual meetings featuring symposium topics of current interest and contributed papers by conference participants are held throughout the United States, Canada, and Mexico. PSNA meetings provide participants with exposure to the cutting-edge research of prominent international scientists, but are still small enough to offer informality and intimacy that are conducive to the exchange of ideas. This newsletter is circulated to members to keep them informed of upcoming meetings and developments within the society, and to provide a forum for the exchange of information and ideas. If you would like additional information about the PSNA, or if you have material that you would like included in the newsletter, please contact the PSNA Secretary. Annual dues and changes of address should be sent to the PSNA Treasurer. Also check the PSNA website at www.psna-online.org for regular updates.

PSNA Membership Drive

The PSNA Executive Committee would like to invite all members of the society to participate in our first membership drive. In order to maintain a vibrant society, we must all get involved and encourage those interested in the society to join. You may be surprised to find those working around you that are not aware of the PSNA and its mission. The annual PSNA membership dues remain remarkably low when compared to those of similar societies, so please encourage your friends and colleagues to join the PSNA!

The PSNA Mission Statement

The objectives of the society shall be to encourage and stimulate research into the chemistry and biochemistry of plant constituents, their effects upon plant and animal physiology and pathology, and their industrial importance and utilization, and to encourage and stimulate communication of these interests among members by providing a forum for the presentation, discussion and publication of scientific research for the advancement of science and promotion of the common welfare.

Please photocopy the membership application enclosed in this newsletter and distribute it directly to those interested parties, individuals, departments, and groups.

Info on the 2006 PSNA Meeting

A proposed schedule can be found on page 12. The meeting details are being worked out and the current information is posted on the PSNA website. We hope to have registration, abstract submission and hotel details available soon.

(President's Message, continued from Page 1)

How can the PSNA make advances?

There are a number of readily-identified ways in which the PSNA can be re-invigorated. First, I believe that we must increase the appeal of our society to a broader community while maintaining the interest of our current members. Second, we must identify one or more "mission(s)" for the society so that our members, their students, the broader community of plant scientists, and the federal funding agencies recognize a greater benefit and impact of the PSNA. Finally, we need to recognize that we must train our students in all aspects of plant biochemistry, ranging from natural products chemistry to genomics and ecology to structural biology. The PSNA should play a role in that effort by continuing to provide a yearly meeting at which our students can be fully immersed in these diverse aspects of plant chemistry and biochemistry.

What strategies have been discussed by the PSNA Executive Committee?

All of the ideas listed above have been the focus of intense discussion among the members of the PSNA Executive and Advisory Committees. Although not all conversations resulted in unanimity, a clear majority supported each of the following initiatives.

First, we must modernize our business procedures and update the Society's constitution and by-laws. Our current constitution is outdated and prevents the Society from responding rapidly and effectively to issues that arise between meetings. Although the PSNA membership will be asked to vote on further revisions to the constitution and by-laws in the upcoming year, the first step in this initiative was accomplished at the PSNA business meeting in La Jolla where the members present unanimously voted in favor of the following two changes to the PSNA constitution:

Resolution to change the Article IX of the PSNA Constitution

- *from:* Section 2. All business requiring action by the membership shall be transacted at a Business Session which shall be scheduled by the Executive Committee during the Annual Meeting.
- *to:* Section 2. All business requiring action by the membership shall be transacted at a Business Session which shall be scheduled by the Executive Committee during the Annual Meeting, or through electronic voting following dissemination of necessary informational materials to the membership.

Resolution to change the Article XII of the PSNA Constitution

- *from:* Section 2. The establishment or amendment of such Bylaws shall require a simple majority vote of the membership.
- *to:* Section 2. The establishment or amendment of such Bylaws shall require a simple majority vote of the ballots returned by the membership following an electronic ballot.

Our second challenge is to expand the Executive Committee to involve more members, distribute workload, and take on additional challenges. Currently, the bulk of the work of the society falls on the shoulders of only five people: the President, the Treasurer, the Secretary, the Editor-in-Chief, and the annual meet-

ing organizer. This situation is less than optimal for at least two reasons. First, the work load associated with these positions sometimes results in items on the Society agenda not being dealt with as quickly as might be desirable. Second, and more importantly, it means that a larger proportion of our membership does not have the opportunity to contribute to PSNA activities, thus decreasing their sense of ownership of their Society. To remedy this situation, the PSNA Executive Committee will soon be recommending new positions be embodied in the constitution that will provide opportunities for more members to become involved in, to name a few, meeting organization, web site operation, new member recruitment, and outreach opportunities such as the AraCyc editor positions described in this issue of the PSNA newsletter by Sue Rhee. This mission would add substantial impact and visibility to the Society and will help to recruit additional members.

Third, with the expiration of our current contract with Elsevier for the publication of Recent Advances in Phytochemistry, it is an opportune time to re-evaluate the impact of the Society's publication strategy. Although many people enjoy the book series, its sales have been flagging in recent years. Further, as promotion and tenure committees and grant panels focus increasingly on citations and impact factors, it is reasonable to question whether we are placing our members' excellent manuscripts in the most high profile and high impact outlet when we ask them to contribute to Recent Advances in Phytochemistry.

Finally, we must redefine the breadth of focus of the society to capture the interest of a broader group of plant chemists and biochemists. Over the years, there has been attrition in the ranks of natural products chemists attending the PSNA meetings. Many apparently feel that the meetings have come to have too strong a focus in the area of molecular biology. These perceived divisions and lack of visibility seem particularly unfortunate at a time when efforts in metabolomics would greatly benefit from the skills of natural products chemists, and when molecular insights into the genes and enzymes involved in natural product synthesis are shedding new light on how the structural diversity of this group of compounds arises. At the same time, the perceived focus in molecular approaches has failed to bring to the Society new members from this area of plant biochemistry and molecular biology, possibly due to the somewhat outdated term "Phytochemical" in the name of the society.

As a first step toward redefining our Society, the Executive Committee will soon ask the membership to vote on a proposal to rename the "Phytochemical Society of North America" the "International Society for Plant Chemistry and Biochemistry (ISPCB)". Although some of our membership will ask "What's in a name?", and others may feel very comfortable with the current name of the Society, I believe that the proposed name change is significant. First, science is an increasingly international endeavor, and by defining the Society as an international society, we will be able to draw upon a broader membership (not to mention the possibility of exciting future meeting venues!). Second, by specifying both chemistry and biochemistry in the moniker of the Society, we would be articulating a commitment to research on both the phytochemicals that plants produce and the genes and enzymes required for their production. Third, considering that most aspects of plant biochemistry are relatively poorly served by existing societies and meetings, I believe that including "biochemistry" in the Society's name will attract a broader population of plant biochemists to become members.

I look forward to a spirited discussion among the membership on these and other issues of concern to the PSNA.

Secretary's Message

Mark Berhow

Another year has gone by and I am still finding it difficult to keep organized and get newsletters out on a timely basis! Oh, well. I do need members (or non members) to send me material so we have something to print! At the 2005 meeting in La Jolla, the executive committee continued the discussion of issues concerning the future of this society. Changes are coming and we will need the input and volunteer time of our membership to keep this society up and running. A key component will be to publish a regular newsletter, so we will need contributions from the membership.

The website has finally been overhauled and I continue to post items on the site as I get them. Two important things we can do for our membership is to post upcoming meeting information and links for meetings that are generally or specifically related to plant phytochemistry and post position openings. If anyone has information on meetings and positions, please send them to me at webmaster@psna-online.org.

Information on the 2006 PSNA meeting is included with this issue and will be posted on the website. Please consult the website for the latest updates.

An important role for PSNA for metabolic databases MetaCyc and AraCyc

What are MetaCyc and AraCyc?

MetaCyc* is a metabolic database whose aim is to become a universal repository of experimentally defined biochemical pathways. Developed in a collaborative effort between Carnegie Institution of Washington (Carnegie) and SRI International (SRI), MetaCyc in its most recent release (version 9.5) contains information on over 500 organisms. This database, which contains a wealth of information on pathways, reactions, enzymes, genes and compounds (visit http://www.metacyc.org/MetaCycOverall.shtml for an overview), is being used as a reference database allowing the computational generation of species-specific databases using their annotated genome in conjunction with the PathwayTools Software Suite developed by SRI. Thus the metabolic architecture of *Arabidopsis thaliana* has been predicted in the **AraCyc*** database developed by Carnegie. Since its inception AraCyc has been refined through manual curation by Carnegie curators. This curation effort has focused on the removal of inappropriate pathways (such as predicted pathways leading to the biosynthesis of compounds that do not exist in *Arabidopsis*), the ongoing addition of missing pathways (simultaneously added to MetaCyc) and updating of existing pathways. In its present version (version 2.5) 86% of AraCyc's 197 pathways have been validated (the 14% remaining have been predicted to exist but not yet experimentally ascertained), many of which remain to be fully refined with pathway descriptions, enzyme information and literature reviews.

A role for PSNA

The immense task of incorporating the entirety of plant metabolism knowledge into MetaCyc and AraCyc befalls on just three curators at Carnegie. They review the literature to assess the validity of pathways, and to gather enzyme information on as many species as possible. PSNA, by its very nature, is a perfect complementary partner and a primary beneficiary of these resources. Under the energetic leadership of PSNA President Clint Chapple, PSNA members have offered assistance in enriching and refining MetaCyc and AraCyc. We are actively seeking members wishing to join our editorial board. Those members will be asked to review pathways whilst acting as permanent contacts making the link between Carnegie curators and specialists in the field. Additionally, we will soon organize a first curation jamboree over a few days where 2-3 scientists will be invited to come to Carnegie at Stanford to review/curate their favorite pathways. Most importantly, we would like to encourage PSNA members to submit pathway/enzyme comments, pathway suggestions, report mistakes or send requests to incorporate any material resulting from their own research or of general interest to the plant research community at large. For this purpose, a form has been made available **online** which allows users to submit a variety of request directly to **Carnegie curators**. We are looking forward to hearing from you.

Useful links:
MetaCyc: http://www.metacyc.org/
AraCyc: http://www.arabidopsis.org/tools/aracyc/
Pathway submission form: http://www.arabidopsis.org/info/pathway_submission.jsp
Carnegie curators: curator@arabidopsis.org

PSNA Annual Meeting Business News

August 1, 2005
Mark Berhow, PSNA Secretary

President Clint Chapple opened the meeting and outlined the meeting agenda. He noted that the PSNA is facing some significant changes over the coming years and urged all members to get involved with the organization to carry it through these changes to make a stronger, more vigorous organization.

2005 Meeting: Meeting chair Joe Noel noted that this meeting has gone fairly smoothly. Between donations and registration fees, the meeting committee has raised about $47,000. He estimates that the meeting will have about $40,000 in expenses, depending on the invited speaker expenses. After getting off to a slow start, the meeting planning and execution went well.

Recent Advances in Phytochemistry (RAP) series: Editor in Chief John Romeo noted that this will be our fortieth year of publication. The series was started to fill a void in phytochemical literature and has seen the participation of the leaders in the field including Eric Conn, Tony Swain, and Jeffery Harborne. The book series has changed publisher a few years back with a requirement that the PSNA guarantees the sale of 75 units each year. While the books

have generally sold well to libraries, we have had problems in recent years selling our obligated books to our own members. The publisher has typically sold from 500 to 1000 copies of each volume we have released.

2006 Meeting: Charles Cantrell and Daneel Ferreira are organizing the 2006 meeting which will be held at the University of Mississippi campus in Oxford, MS July 8-12, 2006. The organizers have looked at the meeting dates for other organizations and these dates have the least conflicts with other meetings. Oxford is home to strong natural products research programs by the University and by the USDA. The host committee also includes Franck Dayan, and Daniel Cook. The goal is to have a very diverse program of topics to attract the most interest in attendees as possible. The idea for this meeting is to not have a single overall theme as we have had for past PSNA meetings. Local hotels, bed and breakfasts will be able to accommodate 100-120 people expected to attend the meeting. Oxford is about 80 miles SE of Memphis, TN, which is the nearest major airport, and a shuttle from the airport would be about $80 per person. Local transportation to and from the meeting to the hotels should not be a problem. Local attractions include the Faulkner home, the University, and Memphis. The committee is working on the finalization of the program and should have thing wrapped up soon.

Treasurers Report: Charles Cantrell noted that a full report will appear in the next newsletter this fall. There has been a slight decrease in the funds in the PSNA investments and this has decreased interest revenue. In general, there has been an overall decrease in total membership over the past few years.

Nomination Committee: The leadership committee was not overwhelmed by nominations for president. In light of the lack of candidates, it was proposed that Clint Chapple stay on another year as PSNA president. Charles Cantrell has served his three years as Treasurer. The nominating committee put forward two nominees for Treasurer. After some discussion, the committee was asked if they could narrow their nominee down to one name.

Secretary Report: Mark Berhow has completed the transfer of duties from the past Secretary Peter Facchini. He has published one newsletter and has completed the transfer and revision of the PSAN website at www.psna-online.org. The organization needs volunteers top submit articles and notifications for posting in the newsletter and on the website. He noted that we would like to have four newsletters a year, but two would probably be email only.

Other business:

Clint Chapple led a general discussion on the state of the Phytochemical Society of North America and some proposed changes to foster membership growth and participation. He noted that the PSNA was an excellent source of information on phytochemical research; the meetings were small and allowed for good interaction among the attendees. The meeting symposia published as RAP have been a valuable contribution the literature and the meetings have been well attending by graduate students. However, the membership has been declining and is not at a good critical mass. Plant biochemistry research is flourishing both in terms of interest and funding around the world, but the PSNA is not attracting the participation it should be. The recent problems in dealing with executive committee turn over and long term planning of the annual meetings. The society needs better management of these critical functions within the group. The PSNA lacks a clearly defined mission, has low visibility among the broader community of plant related research.

Dr. Franck E. Dayan New PSNA Treasurer

Dr. Franck E. Dayan was elected to a three year term as the Society Treasurer by electronic ballot in December. He replaced Charles Cantrell who held the position for the past three years.

Franck is currently a Research Plant Physiologist with the USDA-ARS Natural Products Utilization Research Unit in Oxford, MS. He was born June 25, 1965 in Lyon, France and received a B.S. in Biology with Chemistry minor from Stephen F. Austin State University (Texas) in 1988. Subsequently, he obtained his MS degree in Botany with a minor in Statistics from this same university in 1992. He received his Ph. D. in Botany with Biochemistry minor from Auburn University (Alabama) in 1995. His thesis work focused on the mode of action of phytotoxins that inhibit porphyrin synthesis in plants. This research led to the elucidation of selectivity between weeds and

crops. He was a postdoctoral fellow in Dr. Stephen O. Duke's laboratory from 1995 to 1997 and joined the staff of the Natural Products Utilization Research Unit as a permanent research scientist in 1998. His research is multifaceted and includes the isolation and characterization of phytotoxic natural products (in collaboration with chemists Drs. Cantrell and Rimando), the discovery of novel target sites in plants that can be used to develop novel herbicides, and the biosynthesis of plant natural products (in collaboration with molecular biologist Drs. Baerson, Cook and Pan). This work is focusing on sorgoleone, an allelochemical produced by the roots of sorghum, but it also includes the biosynthesis of lipid resorcinols in rice. This work provides the fundamental information that was needed to identify the genes involved in order to manipulate the pathway. He is senior or co-author of 96 non-abstract scientific publications that include 51 peer-reviewed scientific articles, 1 US patent granted and 1 pending, 13 reviews in scientific journals, 28 book chapters and 4 reviews published in international conference proceedings. He has been invited to numerous international conferences to present his work. He serves on the planning committee for the 2006 meeting of the Phytochemical Society of North America. He also serves on the Herbicide Resistance Committee of Weed Science Society of North America and as an associated editor for Weed Science. He was the recipient of the USDA-ARS Early Career Research Scientist of the Year in 2001 and received a commendation from the Mississippi Legislature (House Resolution 63) in 2001 for his accomplishments.

2005 PSNA Meeting Awards

2005 PSNA Student Travel Awards

Diego Cortes, Virginia Tech
Chris Fraser, Purdue University
Starla Kiser, East Tennessee State University
David Liscombe, University of Calgary
Ann Patten, Washington State University
Anthony Qualley, Purdue University
Suqin Shao, University of Western Ontario
Clarice De Azevedo Souza, University of British Columbia
Christy Strong, East Tennessee State University
Jing-Ke Weng, Purdue University
Yue Yang, University of Michigan

Best Poster Award (Ph.D. student)

Winner: Jing-Ke Weng, Purdue University
First runner up: Yue Wang, Salk Institute
Second runner up: David Liscombe, University of Calgary

Best Poster Award (Post-docs who are relatively recent Ph.D.s)

Winner: Dinesh Nagegowda, Purdue University
Runner up: Michel Auldridge, Salk/ University of Michigan

Best Poster Award Recent Ph.D. 2005

Dinesh Nagegow

I was born in Mandya, a small town in south India. Biology has always fascinated me and has remained my favorite subject right from my school days. My interest in plant biology has its roots in my *alma mater*, the University of Agricultural Sciences, Bangalore, India, where I did my undergraduate and graduate studies in Agriculture.

By the time I finished my B.Sc. I had made up my mind to pursue a career in plant biology. I joined the Biotechnology Department at the University of Agricultural Sciences, Bangalore, India, for my masters where I worked with Dr. Ramanjini Gowda on the transformation of the glucanase-chitinase gene into tobacco plants. After completion of my M.Sc. in 1998, I worked as a Research Associate in the same lab on a project entitled 'Development of transgenic cantaloupes producing edible vaccine against rabies'.

In 2001, I was offered a PhD fellowship from the University of Hong Kong where I joined Dr. Mee-Len Chye's lab in the Department of

Botany. For my PhD, I worked on molecular and biochemical characterization of *Brassica juncea* 3-hydroxy-3-methy-glutaryl-CoA synthase, an enzyme involved in the mevalonate pathway of isoprenoid biosynthesis. During this period I had an opportunity to carry out part of my research at Professor Thomas Bach's lab in IBMP, Strasbourg, France. As part of my PhD program I attended the Plant Biology meeting in 2003 held in Honolulu, Hawaii, where I briefly met Dr. Natalia Dudareva and was very much impressed with the work in her lab on the regulation of floral scent emission.

After obtaining my PhD in 2004, I joined Dr. Natalia Dudareva's lab as a post-doctoral fellow in the Department of Horticulture at Purdue University, West Lafayette. I am currently working on the molecular and biochemical characterization of genes involved in snapdragon and petunia floral scent formation.

The poster I presented in this meeting was on 'characterization of a bifunctional terpene synthase from *Antirrhinum majus* (Snapdragon) catalyzing the formation of a sesquiterpene, nerolidol and a monoterpene, linalool'. Plants release diverse blends of volatile compounds that play crucial roles in pollinator attraction, defense and communication. Terpenoid compounds are one of the major constituents of plant volatiles. Snapdragon flowers emit a sesquiterpene, nerolidol derived from farnesyl diphosphate (FPP) in addition to three geranyl diphosphate (GPP) derived monoterpenes, myrcene, ocimene and linalool. Of the monoterpenes, genes encoding myrcene and ocimene have been characterized. In order to isolate the genes encoding linalool and nerolidol we did a detailed search of the *Antirrhinum* petal specific EST library that resulted in isolation of a cDNA (designated as *AmNES*) that has a high similarity to known sesquiterpene synthases. RT-PCR analyses of RNA from different floral tissues revealed that *AmNES* is highly expressed in upper and lower petal lobes with negligible expression in green tissues. Its expression begins in 1 day-old flowers and peaks on the 4th day postanthesis remaining relatively stable until day 10 and then decreasing slightly. For functional characterization, we expressed AmNES in *Escherichia coli* as C-terminal $(His)_6$-tagged protein. Subsequent purification and characterization showed that it requires Mg^{2+} as a divalent metal cofactor for its activity and it catalyzes the formation of nerolidol and linalool from FPP and GPP, respectively.

This work was supported by National Science Foundation (MCB-0212802) and Fred Gloeckner Foundation.

Best Poster Award Graduate Student, 2005

Jing-Ke Weng

I was born in Hangzhou, China in 1981, at the time when China began to open its door to the world and started to adopt the One-Child Policy due to the intense pressure from steady population growth. Therefore, like other Chinese children who were born at the same time, I have witnessed the dramatic change in life quality and style, while living under the pressure of high expectations from my parents over the last twenty four years. My father, Huan-Xin Weng, is a professor in geology and environmental sciences. During my childhood, he often brought me with him on all sorts of field trips to see the spectacular landscapes and geological architectures that nature has created. He always inspired me with his scientific stories about continental drift, volcano formation, paleoclimate changes, dinosaur extinction, and so on. My mother Hai-Yan Chen is a government officer. She loves reading and guided me into the field of ancient Chinese literature and philosophy from an early age, from which I have benefited a great deal.

I got my BS degree in biotechnology from Zhejiang University, a prestigious university in China. My undergraduate life was intense, but joyful. Besides studying for the courses required by my department, I got many opportunities to learn things outside of the classroom. In my junior year, I participated in a project in my father's lab, working on engineering organic iodine into various vegetables by applying iodized fertilizer, as an alternative to iodized salt for human iodine intake. In my senior year, I moved on and joined Dr. Ji-Zeng Du's neurobiology lab to study the influence of the intermittent hypoxia on the learning and memory in postnatal mice for my bachelor thesis. Besides science, I also studied classical music and classical guitar intensively in my spare time and performed in many local concerts.

I traveled to the US in 2003 and joined the Plant Biology Program at Purdue University. Now I'm working in Dr. Clint Chapple's lab as a doctoral student. My research project focuses on studying the evolution of lignin biosynthesis and the phenylpropanoid pathway in *Selaginella moellendorffii*. My inter-

est in this topic was piqued by the fact that although syringyl (S) lignin is often regarded as being restricted to angiosperms, it is also found in some lycophytes, including *S. moellendorffii*. My goal is to elucidate the molecular mechanism and the evolution of this phenotype. I started this project with an *S. moellendorffii* EST sequencing project to take an initial survey of its transcriptome and to search for candidate genes that may play key roles in synthesizing S lignin in *Selaginella.* The EST resource as well as the recent release of the whole genome shortgun sequences of *S. moellendorffii* by the JGI has greatly facilitated my work. To date, I have cloned candidates for the *S. moellendorffii* homologs of the three phenylpropanoid P450s that are involved in lignin biosynthesis, including a homolog of CYP84A1, a gene that is essential for S lignin synthesis in *Arabidopsis*. I'm now in the process of testing the functional equivalence of both the coding region and the cis-regulatory region of the *S. moellendorffii* phenylpropanoid P450 candidates by cross-species complementation of *Arabidopsis* phenylpropanoid mutants. These candidate genes will also be expressed in yeast and assayed for catalytic activities toward potential substrates *in vitro*. I believe that this project will provide important information for better understanding the evolution of phenylpropanoid pathway in vascular plants.

When I'm not in the lab doing experiments, I enjoy doing the tango, gardening, and traveling around the country. I love my graduate school life: doing the research that I like and experiencing a different culture in the same time. Here I would like to take this opportunity to thank Clint for his guidance and the NSF for funding my research project.

Treasurer's Message

Franck Dayan
Thursday, January 11th 2006

I wish you all a happy and successful New Year for 2006.

I am starting to learn how to use Access 2003 to manage the society's membership roll. Dues notices have been be mailed, so please send in your renewals promptly. Our yearly membership fee is a quite reasonable $40. Please continue to support the PSNA.

We are offering our Recent Advances in Phytochemistry Volumes 34, 35, 37, 38, 39 are available at special discount prices for a limited time.

Purchase any two books for $160 (20% off)
Purchase any three books for $210 (30% off)
Purchase any four books for $240 (40% off)
Purchase all five books for $250 (50% off)
Please contact me at psnatreasurer@yahoo.com if you are interested in any of these options.

THE 2006 PHYTOCHEMICAL SOCIETY OF NORTH AMERICA MEETING

July 8th-12th, 2006
Oxford, Mississippi
Prelimary Program

The annual Phytochemical Society of North America Meeting will be held from July 8th-12th, 2006 at the University of Mississippi. Located approximately 60 miles south of Memphis, Tennessee, Oxford is a small southern community with a population of 12,000 permanent residents and 10,000 university students. Visitors will enjoy Oxford's unique Southern charm, flourishing art community, and historic square with its eclectic mix of posh boutiques, art galleries, and restaurants. Trace the steps of many well known writers who have proudly called Oxford home, including William Faulkner, Willie Morris, and John Grisham, or enjoy the great outdoors by exploring Sardis Lake, one of many State Parks, or the lushly landscaped Ole Miss campus.

The organizing committee has an exciting program planned this year, with many meals and outings included in the registration. They have put together a total of six symposia, encompassing a broad range of disciplines from plant chemistry and biochemistry. Please notice the preliminary program of symposia topics and plenary speakers outlined below. This year, the organizing committee will be accepting contributed papers to help fill the available slots in each symposium. If you would like to be considered for a short talk, please indicate so when submitting an abstract.

Natural Product Biosynthesis and Biochemistry
Dr. Norman Lewis
Dr. Tony Kutchan

Natural Product Synthesis
Dr. Mitchell Avery
Dr. David Kingston

Natural Product Isolation, Structure Elucidation, and Methods for Analysis
Dr. William Reynolds
Dr. Rachel Mata

Herbal Products and Nutraceuticals
Dr. Jim McChesney
Dr. Iklas Khan
Dr. Mahmoud ElSohly

Metabolic Engineering of Natural Products
Dr. David Gang
Dr. Sanja Roje

Discovery and Development of Natural Products for Pest Management
Dr. Steven Duke
Dr. Jonathan Gershenzon

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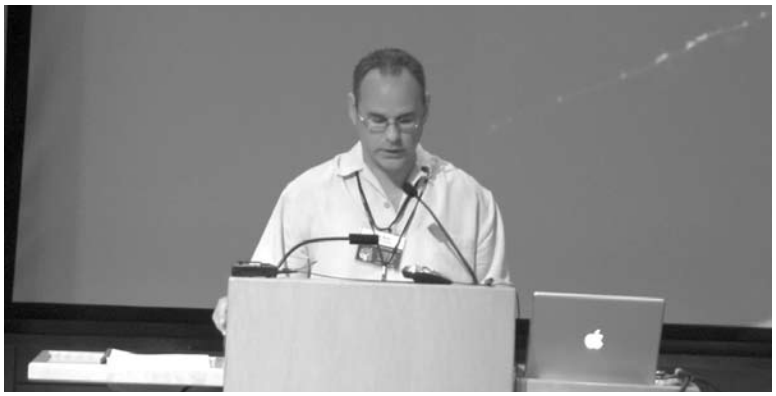
2005 PSNA Meeting attendees



Joe Noel, 2005 Meeting Organizer

Recent Advances in Phytochemistry Series
Order Form for Volumes 34 to 39

Recent Advances in Phytochemistry is now published by Elsevier. Under the new contract, a 50% discount on symposium volumes sold to members and attendees of our annual meeting is available when our Treasurer submits a bulk order at the time of submission of the volume for press. Because the cost of symposium volumes has exploded in recent years, this savings to members is considerable!

THE SOCIETY COMMITS TO PURCHASING 75 COPIES OF EACH VOLUME. Any books not sold at pre-publication prices can still be ordered directly from the treasurer, but price includes shipping costs. Once the 75 copy supply is sold, orders will be directly through Elsevier at a 40% discount to members. You support the Society by purchasing our volumes! Please renew or begin your subscription now!! All prices are in US dollars!

Volume 39	Chemical Ecology and Phytochemistry in Forest Ecosystems PSNA Member Price if order placed by January 31, 2005 = $90.00 After January 31st, 2005 price will be $100.00
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