



# American Society of Pharmacognosy

Summer 2021

**Discovering  
Nature's  
Molecular  
Potential**

ASP Newsletter: Summer 2021, Volume 57, Issue 2

## ASP Hosts Virtual Symposium in an Interactive Environment

By C. Benjamin Naman, PhD

**T**his summer, the ASP will host a virtual symposium series July 16, 23, and 30 entitled “Vanguards of Natural Product Research 2021.” These events will highlight the work and creativity of students and postdocs in the natural products community: ([aspmeetings.pharmacognosy.us/](https://aspmeetings.pharmacognosy.us/)).

Events highlighting developments at the front lines of natural products research will include podium talks and poster presentations, as well as meet-and-greet sessions for all participants. The organizing committee is comprised of PhD candidate Joe Egan, Drs. C. Benjamin Naman, Karen VanderMolen, Robert Cichewicz II, Cindy Angerhofer, and ASP Business Manager Ms. Laura Stoll

The Vanguards Symposium will use a virtual meeting platform that allows attendees to navigate the conference center, browse posters, and communicate in one-on-one and small group sessions akin to traditional real-life interactions. Even brief passing-in-the-hallway cordiality is facilitated! Some ASP members will already be familiar with the Virtual Chair platform, while the organizing committee are confident that others will find the web browser interface to be very intuitive and easy to use with the arrow keys on any computer keyboard. An informational video about Virtual Chair is available for easy viewing at the event page: ([aspmeetings.pharmacognosy.us/virtual-chair/](https://aspmeetings.pharmacognosy.us/virtual-chair/)).

The almost videogame-like setting of this platform seems amusing at first, but it quickly becomes a fun and engaging way to interact digitally with colleagues across any distances. The organizing committee faced much less online fatigue when doing a demo of this software, and a screenshot (Figure 1: see page 4) shows how the virtual conference



IMAGE BY CINDY GRAF

**The Vanguards event will use a virtual meeting platform that allows attendees to navigate the conference center, browse posters, and communicate in one-on-one and small group sessions akin to traditional real-life interactions.**

center might look come July. In it several members of the organizing committee are shown at the intersection of the conference presentation room (these will still launch externally in Zoom), the poster session (which accommodates videos or fixed image posters), and social areas (yes, there is a bar – bring your own drinks of choice and enjoy not searching for spare drink tickets this year). Tables set in the system create private interactions where only seated individuals can hear, see or participate in the conversation.

Posters have more broad space for fostering small group standing discussions, and the hallways, bar, and other open spaces are available for public dialogue. If you find yourself looking for a particular attendee, there is a function to facilitate finding them wherever they are in the space. Imagine having that ability at an in-person event! After extensive testing, the organizing committee felt confident that this new

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[www.pharmacognosy.us](http://www.pharmacognosy.us)

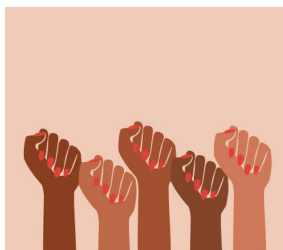


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Virtual Symposium



The Imposter Syndrome



David P. Carew

## Employment Service

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

[www.pharmacognosy.us/jobs/](http://www.pharmacognosy.us/jobs/)

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# Editor's Corner

## American Society of Pharmacognosy

By Edward J. Kennelly, PhD

For a second year in a row, the ASP Annual Meeting has been cancelled due to the COVID-19 pandemic. An innovative response to this situation is the virtual meeting that has been organized by a diverse group of members, and you can read about the *Vanguards of Natural Products* in our lead article of this issue of the *Newsletter*. While many of us are disappointed we cannot meet in person, *Vanguards* offers members an interactive virtual environment to attend talks and gather informally with members, in an environment like some video games. I hope you will read about this and try to attend this unique gathering of members and other colleagues.

As the number of COVID infections continues to drop precipitously in most parts of the United States, we are keenly aware that ASP is an international society, and members from other countries with limited vaccination access are still struggling, especially with the new arising variants. A search of the ASP online directory shows that 18 ASP members are from India. We hope all members are keeping safe, wherever you may be. ASP is tentatively planning an in-person meeting in South Carolina for 2022.

A veteran ASP member, Dr. Dave Carew, died in April at the age of 92. He grew up during the Depression in a family of limited means and rose to become a highly respected researcher and dean at the University of Iowa. Two ASP members who knew him well, Drs. Bob Krueger and Jack Rosazza, have written a beautiful remembrance of their colleague and friend. As I read through this article, many of his life lessons resonated with me, and I hope many ASP members can learn from Carew's exceptional career and life.

Younger ASP member Dr. Vanessa Nepomuceno has contributed a thought-provoking article about the "impos-

ter syndrome." This article is part of a series organized by the Diversity and Inclusion Committee, and I especially encourage ASP members who mentor students to read this article and consider how their mentoring style could impact students. Nepomuceno has been a regular contributor to the *Newsletter* since she was a graduate student at the University of Illinois at Chicago, and I appreciate her dedication to the society over the years, and now making us aware of a situation that is often not discussed openly.

The most time-sensitive articles in the *Newsletter* are now being published, before the final *Newsletter* is assembled, in a format that is easy to disseminate by social media. This new format, called *AS(A)P Newsletter*, can be found at [www.pharmacognosy.us/newsletter/](http://www.pharmacognosy.us/newsletter/). I want to thank the entire ASP *Newsletter* Advisory Committee for getting this up and running so quickly. A special thanks to their chair, Dr. Michael Mallowney, for patiently guiding me through this new procedure on multiple occasions. I think I may have finally gotten the hang of this!

Our recurring columns are far fewer in this issue than usual. The *Newsletter* has undergone some changes with our volunteer writers. As we look for new writers, please let me know if you have an interest in writing for the *Newsletter*. We are actively looking for someone to take on the "Brief News from Washington" after the retirement of Dr. Georgia Perdue. If you have ideas about new directions for regular columns, please let Michael Mallowney or me know. Fortunately, some of our regular columnists are still with us, and I especially want to lift up Dr. David Newman for his never flagging commitment to "Hot Topics in Pharmacognosy."

Have a great summer, and I hope to see you virtually at the *Vanguards* meeting. ■

# ASP Hosts Virtual Symposium in an Interactive Environment

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**The virtual platform fostered increased participation from international community members, improving our outreach, diversity, and inclusion.**

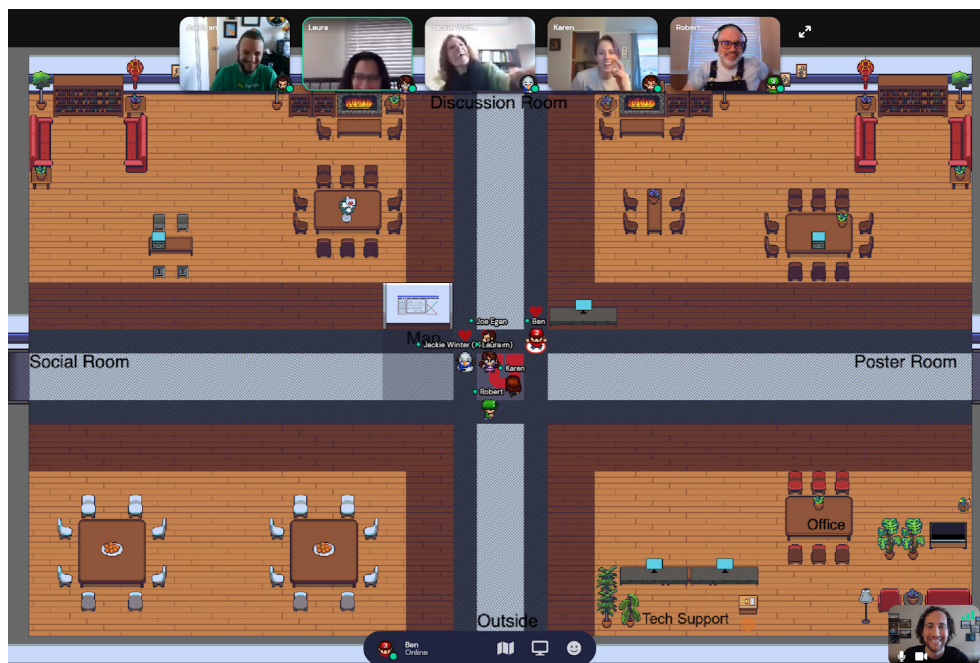


FIGURE 1: Several of the event coordinators interacting in Virtual Chair online. From top-left to bottom-right: Joe Egan from Simon Fraser University; Laura Stoll from the ASP; Jaclyn Winter from University of Utah; Karen VanderMolen from The Procter & Gamble Company; Robert Cichewicz from The University of Oklahoma; Benjamin Naman from Ningbo University.

SCREENSHOT PRODUCED BY C.B.N.

platform will be even better for social interactions than what was offered previously, and it still links out to Zoom for the well-established webinar-style oral presentations that everyone has become very familiar with in the last year or more.

In addition to the many challenges and unfortunate outcomes of the ongoing COVID-19 pandemic, there have emerged new opportunities and technologies for staying connected. When the ASP Annual Meeting of 2020 was canceled, the ASP Younger Members Virtual Symposium was hastily organized and executed using the Zoom platform. The event ran as smoothly as anyone could have hoped for and was later reviewed in summary for our membership. [*The ASP Newsletter*, 2020, 56 (3): 21-23.] The virtual platform fostered in-

creased participation from international community members, improving our outreach, diversity, and inclusion. Furthermore, presenters had the chance to disseminate their work to that broader-than-usual international audience and have (virtual) podium experiences at earlier stages in their careers than most in-person meetings facilitate.

While we all hoped that it would be possible to hold the next ASP annual meeting or later interim meeting in a “post-pandemic” 2021, it was also recognized that the digital platform could still be useful in the future to build on the positive aspects experienced in 2020. When it became clear that in-person events would be further delayed, the return of an online

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**It remains an utmost priority of the ASP to highlight the work of younger members, rising stars through the Vanguards of Natural Product Research.**

## ASP Hosts Virtual Symposium in an Interactive Environment

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**Whether you are new to the field or a seasoned veteran, we hope that you will join us for these opportunities to interact with the students and postdocs who are on the frontlines of natural products research, and learn about cutting edge science being developed around the world.**

meeting found increased demand. It remains an utmost priority of the ASP to highlight the work of younger members, rising stars through the Vanguard of Natural Product Research. The executive committee rallied behind the need to facilitate student-to-postdoc transitions via the interactions of ASP younger members with more-seasoned faculty who are seeking new talent, as well as offering enhanced exposure for any members in early-career ranks who desire to move into industry. In addition, a jobs fair and career event is being planned, and this is detailed in another article within this issue of the *ASP Newsletter*.

Whether you are new to the field or a seasoned veteran, we hope that you will join us for these opportunities to interact with the students and postdocs who are on the frontlines of natural products research, and learn about cutting edge

science being developed around the world. Consider the potential benefit to the society from broad participation and engagement at this event, and alternatively contrast the harm that we could face if one or more years' worth of annual meetings and the according poster and podium presentations are skipped. We are counting on you, every member of the ASP, to participate if you can, and help to advertise the event by word-of-mouth to colleagues near and far. Cost will not be an issue, travel is not going to be necessary, and the organizing committee really expects this to be a fun way to spread ASP-relevant science around the world. The organizing committee thanks you in advance for your participation, and looks forward to seeing you in the online virtual world for the Vanguard of Natural Product Research 2021! ■

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## Your Votes Have Been Counted!

By Patricia Carver, MA

**T**he society's election results were recently announced in an e-mail to members from ASP Secretary Dr. Amy Keller.

ASP Fellow Dr. Amy Wright, a research professor at Florida Atlantic University's Harbor Branch Oceanographic Institute, was elected to a one-year term as ASP vice president (2021-2022), followed by a one-year term as president (2022-2023). Dr. Kerry McPhail, the society's current vice president, will begin her term as president in July.

Dr. Nadja Cech, Patricia A. Sullivan Distinguished Professor of Chemistry at UNC Greensboro, was named to the ASP Executive Committee and will serve from 2021 to 2025.

The total number of members who voted in this year's elections declined slightly from 51.9% in 2020 to 50.6% now.

The ASP would like to thank everyone who took part in the elections and congratulate Drs. Wright and Cech on their new roles with the society. ■



**Dr. Amy Wright**  
PHOTO: BRIAN COUSIN



**Dr. Nadja Cech**  
PHOTO: LINDLEY BATTLE



# Taking Action: The Imposter Syndrome and Graduate Minority Students

By Vanessa Nepomuceno, PhD

**A**t some point in graduate school, most people experience imposter syndrome. Imposter syndrome is when you doubt your skills and talents, minimize your own accomplishments, and have an internalized fear of being exposed as a “fraud.” For minorities, there is additional pressure to achieve and break stereotypes because we are the first to enter fields we were locked out of for centuries. As a result, we have to work harder than our counterparts and be exceptional to be taken seriously.

Imposter syndrome should have been one of the themes of my dissertation. It often felt like I should not be proud of my accomplishments because they were not significant or truly earned. I feel a twinge of anxiety when I hear people call me “Dr.” or put PhD at the end of my name. Nearly two years later, it still does not feel mine. However, imposter syndrome is not a new subject. In 1978, psychologists Pauline Rose Clance and Suzanne Imes published a study that would be the founding basis for decades of work. The study examined over 150 highly successful women who did not feel successful despite their accomplishments. The majority of these women were well-educated, respected professionals yet could not accept that they were worthy of their accolades or positions. In fact, these women were so convinced that they found “innumerable means of negating any external evidence that contradicts their belief that they are, in reality, unintelligent.”<sup>1</sup>

## **Navigating imposter syndrome in academia**

Feeling inadequate is impossible to avoid sometimes. Yet there are ways to support yourself through your graduate studies. Forming community and building relation-

ships with other Black, Indigenous and People of Color (BIPOC) is essential. Lack of diversity can make this incredibly difficult. The internet is a creative way around this. Many scientists have personal blogs depicting their graduate experiences. Social media, especially LinkedIn and Twitter, is an outstanding resource to find people that share your background and research interests. Network and expand your circle by joining professional societies and attending conferences. Find mentors and allies outside of your graduate program and university that support you both mentally and professionally. Secondly, do not underestimate the value of counseling. Chronic feelings of imposter syndrome often lead to mental illness such as anxiety and depression.<sup>5,6</sup> It might seem daunting to read additional books or articles as a graduate student, but reading studies on psychological impacts of systemic racism for BIPOC can bring validation and help you maintain perspective. Reading Claude Steele’s *Whistling Vivaldi: How Stereotypes Affect Us and What We Can Do* was the first time I had entertained that I was starting to believe my own stereotype as the “minority” in a group.

Give yourself positive reinforcement. My best friend introduced me to what she calls her “Atta Girl Folder.” It is a compilation of emails that she has saved from colleagues and supervisors commending her work. The focus is not the praise of others, but to remind herself of who she is: a hard-working person that is capable, worthy and successful at what she is doing. I cannot overstate the following: you must recognize the truth versus the lie. You *feel* inadequate, but that does not mean that you *are* inadequate.

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**For minorities, there is additional pressure to achieve and break stereotypes because we are the first to enter fields we were locked out of for centuries.**



## Taking Action: The Imposter Syndrome and Graduate Minority Students

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It is important to reiterate to yourself that these internal thoughts do not represent your capacity for learning or success, even if you do fail a few times. While difficult to accept, some failure is normal but not indicative of your potential or talents. Have compassion for yourself.

### Advisor's corner: mentorship and allyship

Feeling like an imposter during your graduate studies is so common that it is considered normal. Normal and common are not synonymous. More importantly, just because something is common does not mean it is acceptable. Advisors along with graduate faculty and staff should make an effort to help students overcome their negative self-talk and succeed. Try to lead with compassion and empathy; you were once a graduate student too. Help students distinguish between humility and fear. Keep a growth mindset when interacting with your students and check in with them. This means relating to everyone as if they are capable of learning and becoming effective.<sup>7</sup>

For minorities, it is not just the student doubting their abilities or right to exist in academic settings. It is racism

and systemic barriers that send the message that they are not welcome in these settings. It is the strain of trying to thrive in a system that was never designed to include them let alone be conducive to their success.<sup>3</sup> This is why microaggressions can be so crippling. Microaggressions are defined as a comment, action, or behavior that communicates hostile, derogatory, or negative attitudes toward a stigmatized or culturally marginalized group. It is often subtle and can be unconsciously or unintentionally expressed.<sup>8,9</sup> Imposter syndrome is aggravated by bias and microaggressions, negatively reinforcing what a student is already thinking of themselves. It is critical for advisors, faculty, and staff to educate themselves, assess their bias, and work to cultivate a better learning and working environment for all.<sup>4</sup> Below is a list of resources to attempt to do so. Taking these steps are paramount because without it we are just addressing the symptom but not the illness.

Many thanks to all those who took the time to participate in the webinar. We appreciate having all of our members of the American Society of Pharmacognosy on this journey with us. ■

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## Taking Action: The Imposter Syndrome and Graduate Minority Students

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**Normal and common are not synonymous.**

### ADDITIONAL EDUCATIONAL RESOURCES

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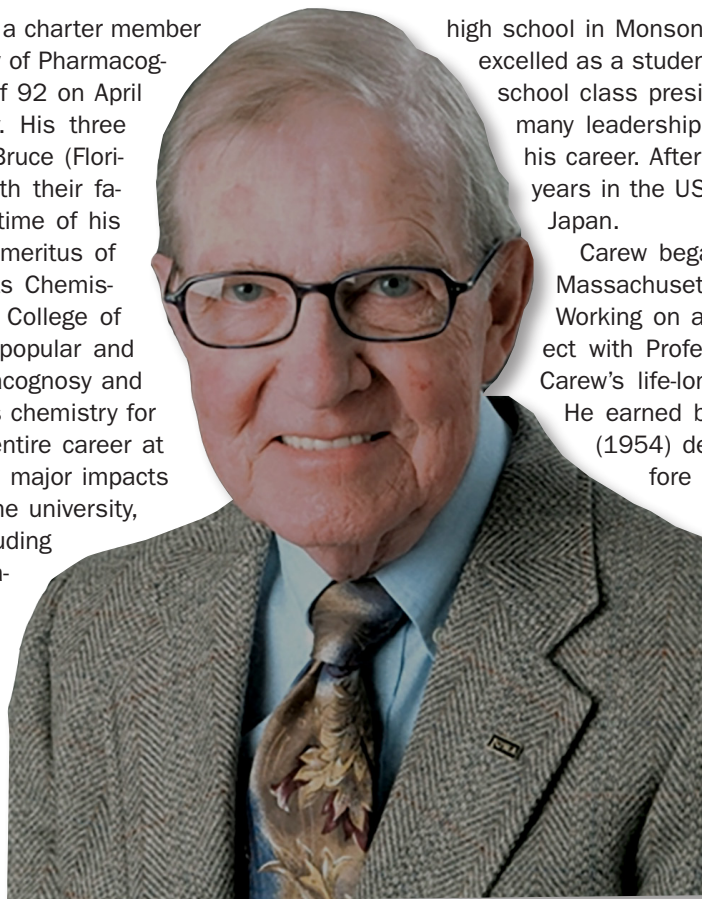
**For minorities, it is not just the student doubting their abilities or right to exist in academic settings. It is racism and systemic barriers that send the message that they are not welcome in these settings.**



# In Memoriam: David P. Carew

By Robert Krueger, PhD and Jack Rosazza, PhD

**D**avid Pease Carew, PhD, a charter member of the American Society of Pharmacognosy, died at the age of 92 on April 26, 2021 in Iowa City. His three children, Susan (Tennessee), Bruce (Florida), and Steve (Iowa) were with their father when he passed. At the time of his death, Carew was Professor Emeritus of Medicinal and Natural Products Chemistry at the University of Iowa's College of Pharmacy. Carew was a very popular and dedicated professor of pharmacognosy and medicinal and natural products chemistry for over 35 years. He spent his entire career at the University of Iowa and had major impacts on the College of Pharmacy, the university, and national organizations including the American Society of Pharmacognosy. It is truly difficult to write a fitting memory of this gentle and accomplished man who was a good friend, mentor and colleague to many, and whose soft-spoken and giving nature never permitted him to speak of his own many substantial contributions during his career.



Dr. David Pease Carew

high school in Monson, where he graduated in 1946, excelled as a student and athlete, and was the high school class president, a young beginning to the many leadership roles he assumed throughout his career. After high school, he served for two years in the US Army during the occupation of Japan.

Carew began his higher education at the Massachusetts College of Pharmacy in 1948. Working on an undergraduate research project with Professor Maynard Quimby sparked Carew's life-long interest in pharmacognosy.<sup>1</sup> He earned bachelor's (1952) and Master's (1954) degrees from that institution before moving to the University of Connecticut in Storrs as one of Arthur E. Schwarting's first five graduate students, finishing his doctorate in 1957.<sup>2</sup> His research there focused on plant callus culture, the basis of much of his research work at the University of Iowa.

Carew married Shirley Makepeace in 1951 while he was enrolled at the Massachusetts College of Pharmacy and she was a nursing student. Their young family moved to the hinterlands

of Iowa in 1957 after Carew finished his PhD degree in pharmacognosy at the University of Connecticut. The University of Iowa, College of Pharmacy welcomed the Carews to their new community where Carew began his academic career as an assistant professor of pharmacognosy. The New Englanders thrived in Iowa City despite their first few years of living on

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## PERSONAL AND EDUCATION

Carew was born in Monson, MA on October 21, 1928. His father Ralph died of polio when Dave was three years old, leaving his family, including six sisters and a brother, to survive the Depression with their mother Sara. Lessons from a hard-working and close family undoubtedly led to Carew's own dedicated and decent outlook on life. He seemed always at peace and brought serenity to those around him. Carew attended

of Iowa in 1957 after Carew finished his PhD degree in pharmacognosy at the University of Connecticut. The University of Iowa, College of Pharmacy welcomed the Carews to their new community where Carew began his academic career as an assistant professor of pharmacognosy. The New Englanders thrived in Iowa City despite their first few years of living on

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## In Memoriam: David P. Carew

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### Carew's research centered on studies of callus and fermenter cultures of medicinal plant species. At the time, this work was quite cutting edge.

campus in a World War II Quonset hut available for new faculty and students. Nobody would have known of the Massachusetts origin of the Carew family, except for Shirley's pleasant but distinct accent that she proudly kept throughout her life. Monson people never spoke like that!

#### AT IOWA

Carew progressed through the academic ranks achieving full professorship in 1965. He established and taught Pharmacognosy I and II courses solo along with the Pharmacognosy laboratory until 1969 when Jack Rosazza joined the Division of Pharmacognosy. Early on the lab was a combination of microscopic pharmacognosy along with experiments designed to engage students in properties of alkaloids, polysaccharides and other plant and microbial natural products. Smaller academic divisions of pharmacognosy and medicinal chemistry in the college joined together in 1974 to become the Division of Medicinal and Natural Products Chemistry with strong graduate and research programs. Undergraduate and professional courses were merged, and Carew taught sections on antibiotics and the now, critically important area of vaccines and immunizing biologicals to hundreds of undergraduate and professional students. Carew was a respected teacher and revered academic advisor to pharmacy students, and a very kind, patient and gentle mentor to new faculty members offering encouragement and guidance critical to success.

At Iowa, Carew served on and led numerous collegiate, university and national committees in many different capacities. In the College of Pharmacy, he was the assistant dean for Undergraduate Affairs for 16 years and the acting dean during 1984. One year after beginning at Iowa, he assumed a daunting task as co-chair of the "new" building committee. He chaired self-study committees for ACPE accreditations from 1976-1991 and for the reviews of the College of Pharmacy. For the university, Carew served on the Faculty Council and Senate, co-chaired the university Sesquicentennial Committee, and served on committees including Honors Convocation, Judicial, Foreign Students, University Hospitals, VA Medical Center and the Emeritus Faculty Council. Nationally, Carew was very active in the American Association of Colleges of Pharmacy (AACP), chairing the section on biological sciences. He chaired the pharmacognosy and natural products section of the Academy of Pharmaceutical Sciences and served on an NSF Undergraduate Research Awards review panel.

#### RESEARCH

Carew's research centered on studies of callus and fermenter cultures of medicinal plant species. At the time, this work was quite cutting edge. His work with A. E. Schwarting involved *C. purpurea* infection of rye embryo callus cultures for alkaloid production.<sup>3,4</sup> Other plant species studied included a long series of publications on alkaloid production with *C. roseus* and its production of secondary metabolites. He and several graduate students investigated medium influence, the addition of biochemical precursor compounds and the metabolism of key mono-indole alkaloids by the cultures themselves. Dave and I (Bob) produced anthocyanins in a 10+ year old culture of *C. roseus* continuously grown in the dark. We cultured the cells under grow lamps and they turned red. Not thinking about anthocyanins at first, we focused on possible culture contamination. We spent many an hour trying to figure out what we had when one of those "eureka" moments hit us simultaneously. We went to the College of Pharmacy's rooftop greenhouse and collected some *C. roseus* grown there along with the parent plants for the cultures. The anthocyanins from those flowers were a perfect match for our red cultures' compounds.<sup>5</sup> My work as a graduate student at Iowa under Dave gave me the career I had first envisioned as a sophomore in high school. He provided me with two pre-doctoral fellowships and a lifetime of friendship and love of our science.

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From left, Shirley Carew, Beth and Bob Krueger, Dave Carew, and Jack Rosazza during the 48<sup>th</sup> Annual ASP Meeting in Portland, ME in July 2007.

## In Memoriam: David P. Carew

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### AMERICAN SOCIETY OF PHARMACOGNOSY (ASP)

David P. Carew is synonymous with the beginnings of the ASP. He was a charter member as the Society was formed and was present at the 1959 meeting where it all started. Preceded by "The Plant Science Seminars" founded in 1923, the ASP had its official beginning at a meeting held in 1959 at the University of Illinois in Chicago. The original slate of officers included Varro (Tip) Tyler as president, Norman Farnsworth as vice president (no emphasis on vice intended), Frank Mercer as secretary and Frank Crane as treasurer. Carew was elected to a three-year term as a member of the first Executive Committee. Carew served as ASP vice president in 1964-65 and was the sixth president serving in 1965-66. He assumed his office at the 1965 annual ASP meeting in Rhode Island where I (Jack) attended my first ASP meeting as a graduate student, had the pleasure of meeting Dave and Shirley, enjoyed conference lectures, and could not resist the New England clam bake meeting dinner. Carew was one of the few ASP members to attend nearly all 50 ASP meetings that would have included the 50-year celebration in Hawaii in 2009 if he had not suffered a shoulder injury just before the meeting began. Dave and Shirley were predictable fixtures at ASP meetings enjoying the company of the Schwartings, Tylers, Bradys, Beals, Robbers and many other original ASP members.

Carew chaired the local program committee for the annual ASP meeting in Iowa City in 1968 and was a member of the planning and local program committee for the annual meeting in Iowa City in 1997 along with Jack and former ASP President Jim Gloer of the University of Iowa Chemistry Department. Carew served the association through work on numerous ASP committees and was elected as an Honorary Member in 1991 in recognition of his many contributions to the ASP.

### OTHER HONORS

Carew's leadership and professional contributions were recognized in many other ways as well. He received the Marion L. Huit Award at Iowa, designated for "Highest Qualities of a University of Iowa Professor," and the Michael J. Brody Award for

"Faculty Excellence in Service to the University of Iowa and the State of Iowa." Carew was designated as "Honorary President of the Iowa Pharmacists Association" in 1994. He was a member of Rho Chi and Sigma Xi, an elected Fellow of the AAAS as well as the Academy of Pharmaceutical Sciences. ■

### In Remembrance:

Donations may be made in Dave's memory through the ASPF David P. Carew Student Travel Award.

### AUTHORS

Bob Krueger, PhD is an emeritus professor of pharmacognosy at Ferris State University in Big Rapids, MI. He earned his PhD degree at the University of Iowa working with Dave Carew as his doctoral mentor. [RobertKrueger@Ferris.edu](mailto:RobertKrueger@Ferris.edu)

Jack Rosazza, PhD is an emeritus professor of medicinal and natural products chemistry, College of Pharmacy, University of Iowa, and emeritus founding director of the Center for Biocatalysis and Bioprocessing. He worked at the University of Iowa with Dave Carew for nearly three decades. [zazadaza@aol.com](mailto:zazadaza@aol.com)

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- 4 Carew, D.P., Schwarting, A.E. Infection of rye embryo callus and *Claviceps purpurea*. *J. Am. Pharm. Assoc.* **1959**. 48: 499.
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**David P. Carew is synonymous with the beginnings of the ASP. He was a charter member as the Society was formed and was present at the 1959 meeting where it all started. Preceded by "The Plant Science Seminars" founded in 1923, the ASP had its official beginning at a meeting held in 1959 at the University of Illinois in Chicago.**

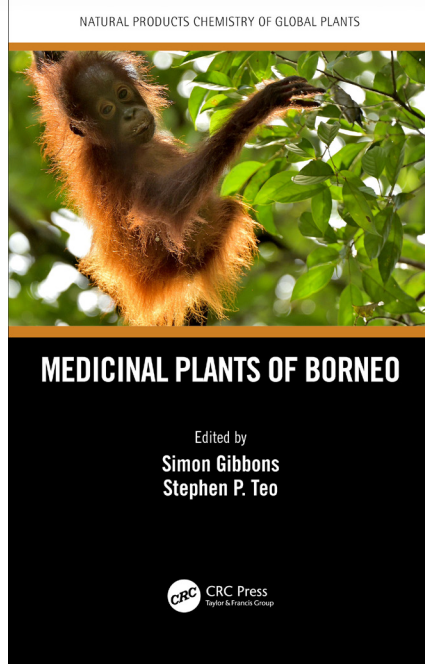
# Ancient Folklore to Modern Science: A Written Path to Knowledge of Global Plants

By Ray Cooper, PhD

One of the delights of being a member of the ASP and attending the annual meeting is connecting with old friends and meeting new ones from around the world. In particular, we have the opportunity to learn from our colleagues how they are pursuing science in various regions globally, using ethnobotanical sources, and providing evidence-based science to support the use of folklore medicines.

As more data are coming forward, our desire for specific information on local medicines, including taxonomic names connecting to local names, sources, preparations, etc. is critical as these plants are valued by indigenous populations. A few years back, we took an approach to collect these data by establishing a new book series to focus on the pharmacognosy, covering specifically underrepresented regions around the world, rich in folklore and botanical and medicinal uses, as a platform to present the natural products and organic chemistry and, where possible, link these molecules to pharmacological modes of action.

Human beings from ancient times have been reliant on nature for managing their basic needs such as foods, spices, clothing, shelters, fertilizers, flavors, fragrances, and medicines. Medicinal plants have been a rich source of numerous therapeutic agents used in various traditional medicinal systems from prehistoric time to the cure of different kinds of ailments and diseases.<sup>1,2</sup> The World Health Organization (WHO) revealed that most of the world's occupants (>80%)



essentially utilize folklore medicines for their basic medical needs. According to another survey in the USA, 60-70% of patients residing in rural areas across the globe have been using phytomedicines for their basic health problems.<sup>3</sup>

Thus, through examples of the chosen plants, this series describes the key natural products and their extracts with emphasis upon sources, an appreciation of these complex molecules, discussions on sustainable resources, and applications in science. No work is intended to be a comprehensive treatise on the countries' flora but rather, to choose selectively, plants and species of interest.

We were fortunate to receive the support of Hilary Lafoe, the senior acquisitions editor at CRC Press, Taylor & Francis Publishers. Lafoe has been a regular attendee at the ASP meetings for many years, championing natural products books at the CRC book display booth. This series belongs to *Natural Products Chemistry of Global Plants* and is intended as science texts for undergraduate and graduate chemistry students. It is intended also for scholars wishing to broaden their knowledge in pharmacognosy.

As of this writing, six books on medicinal plants from Sri Lanka, Bangladesh & West Bengal, Brazil, Iran, Natural Products of the Silk Road, and Borneo have been published. Books on Cameroon and Yunnan Province (China) are currently in production. These will be followed by research volumes from the following countries: Carpathia, Ecuador, Laos, Thailand, Turkey,

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**As more data are coming forward, our desire for specific information on local medicines, including taxonomic names connecting to local names, sources, preparations, etc. is critical as these plants are valued by indigenous populations.**

[www.pharmacognosy.us](http://www.pharmacognosy.us)

# Ancient Folklore to Modern Science: A Written Path to Knowledge of Global Plants

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## The World Health Organization (WHO) revealed that most of the world's occupants (>80%) essentially utilize folklore medicines for their basic medical needs.

Vietnam, and volumes from the African continent (Madagascar, Western Cape of South Africa, and Uganda).

Importantly, we sought out experts from their respective countries to complete each volume. We are fortunate to identify these research scientists who draw directly on their ancient folklore and collate the research in support of the folklore uses. Furthermore, these books offer not only their country's natural resources to be published internationally but a resource to the respective country and are available for translation into the local language if desired.

It has been a privilege to work with every colleague as an opportunity to give support to our young colleagues and researchers wishing to publish internationally and present their local scientific data to the wider community.

For each book, we first initiate a proposal outlining the scope, and the proposal is sent out for review by Taylor & Francis. Some of you may have been asked by Taylor & Francis for review, and we gratefully appreciated comments and suggestions. Once accepted, a formal contract is offered by Taylor & Francis directly with the author or editor. Importantly, the size of book, number of pages, tables and figures are indicated along with a negotiated timeline to complete the manuscript. There are no costs to the author/editor, and royalties on book sales are offered by Taylor & Francis.

This proposal usually provides the scope, number of chapters, and any rich sources of information from each region. Each book can focus on the chemistry of natural products. However, where possible, our intention is to trace a route

through history from ancient civilizations to the modern day showing the important value to man of natural products in medicines, foods and many other ways. As the writing takes place, we seek the natural products that may be scientifically fascinating. Any complex chemistry and structures of many substances from each region are presented and explored if available. Often books describing folklore medicine do not describe the rich chemistry or the complexity of the natural products and their respective biosynthetic building blocks. Thus, a balance between chemistry/biological activity and, where available, in vivo/clinical study is welcome.

Once the final manuscript is submitted to Taylor & Francis, a production team is assigned to shepherd the book into publication. We have seen each book get published within four to six months. Issues over any copyright are resolved. It is often permissible to replicate from other work if permission is granted from the origin to reproduce. Today, through various e-sources, much information can be accessed for free. Once the production team sets the typeset schedule, proofs become available and, after sign-off, the book goes to print.

For more information on this book series, please go to: [www.routledge.com/Natural-Products-Chemistry-of-Global-Plants/book-series/CRCNPCGP](http://www.routledge.com/Natural-Products-Chemistry-of-Global-Plants/book-series/CRCNPCGP)

If anyone is interested in more details or would like to suggest a proposal for an upcoming volume in their region, please feel free to contact me at [rcooperphd@aol.com](mailto:rcooperphd@aol.com).

Thanks for reading. ■

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**Thus, through examples of the chosen plants, this series describes the key natural products and their extracts with emphasis upon sources, an appreciation of these complex molecules, discussions on sustainable resources, and applications in science.**

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- <sup>1</sup> Newman, D.J. and Cragg, G.M. Natural products as sources of new drugs over the nearly four decades from 01/1981 to 09/2019. *Jr. Nat. Prod.* **2020**. 83 (3): 770-803.
- <sup>2</sup> Cragg, G.M., Newman, D.J. Natural products: A continuing source of novel drug leads. *Biochim Biophys Acta.* **2013**. 1830: 3670–3695.
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# HOT TOPICS IN PHARMACOGNOSY

## So What About the Other Half of Kinase Inhibitor Activities?



By David J. Newman, DPhil

### INTRODUCTION

**A**lthough we have been inundated over the years with stories of the successes with inhibiting protein tyrosine kinases (aka PTKs) and their chemical cousins, based on other amino acids such as serine or threonine as the basis of drugs against a variety of diseases predominately in cancer, little has been “seen of their other partner in crime,” the protein tyrosine phosphatase whose job is to regenerate the kinase in due course.

Do they have potential as targets in their own right where the ability to inhibit specific phosphatase(s) may well lead to a drug candidate?

### DISCUSSION

As a result of a very interesting recent paper in the *Journal of Medicinal Chemistry* by Hu et al.<sup>1</sup> the potential of inhibitors of this enzyme as a potential cancer treatment against triple negative breast cancer (TNBC) was demonstrated. What was fascinating about this particular study was that the agent(s) initially identified were from a series of naturally occurring jamanones. Specifically, the chromanone Jamunone M (**1**) was reported by the same

Chinese investigators following isolation from *Eugenia jambolana* seeds, and who had reported their inhibitory activity against PTP1B four years ago as basically a phytochemical exercise with one target enzyme PTP1B.<sup>2</sup> At that time the reports covered the isolation, identification of knowns and structural determinations of other isolated compounds. Some of those compounds exhibited quite reasonable potencies ( $IC_{50}$ ) in the 0.42 to 3.2  $\mu$ M range, comparable to ursolic acid, a well-known triterpenoid with multiple pharmacological activities.<sup>3</sup>

In the recent 2021 paper, Hu et al. demonstrated that compound **1** demonstrated selectivity against breast cancer cells versus other cancer cell lines and also normal cells, with better activity against TNBC cells than the “regular” breast cancer cell line MCF7. Further investigations demonstrated that JM (**1**) specifically inhibited the enzymatic activity and also the protein expression of PTP1B, with subsequent deactivation of the PI3K/Akt pathways. Then to add to their “case,” an *in vivo* assay against the TNBC cell line MDA-MB-231 demonstrated significant inhibition of tumor volume/weights at 30 mg/kg over 20 days with no significant weight loss. Since scalable synthetic schemes were part of this paper, the potential for further studies is high.

If one now moves away from cancer studies and looks at the disease states where PTP1B inhibition is a “useful” process, then inhibitors of this enzyme appear as drug candidates and actual approved drugs in diseases not “formally” related to cancer. One such major area is in the treatment of diabetes II, and it would appear that although inhibition of this phosphatase is a factor in a

*continued on page 15*

**If one now moves away from cancer studies and looks at the disease states where PTP1B inhibition is a “useful” process, then inhibitors of this enzyme appear as drug candidates and actual approved drugs in diseases not “formally” related to cancer.**

## HOT TOPICS IN PHARMACOLOGY:

### So What About the Other Half of Kinase Inhibitor Activities?

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number of experimental and approved drug candidates, there appears to be a lack of testing of some of these antidiabetic II agents in cancer studies.

A recent study of natural PTP1B inhibitors by the Le group from Vietnam<sup>4</sup> studying isolated compounds from *Polygonum cuspidatum* led to the identification of 10 active principles. Of these 10, compound **2** (identified as tri-cuspidatin B) had an IC<sub>50</sub> value of 6.3 μM, a K<sub>i</sub> value of 51.4 μM and demonstrated mixed-competitive kinetics when tested against PTP1B but demonstrated increased uptake of glucose in adipocytes at 5 and 10 μM levels, possibly due to inhibition of PTP1B enzymes.

Following on from the impact on glucose metabolism above, the 2020 paper by Rocha et al.<sup>5</sup> discussed the PTP1B inhibition potential of the drug lobeglitazone (**3**) which was approved in Korea in 2013 as an antihyperglycemic agent via PPAR-γ agonism. This is a very interesting paper as it discusses a fair number of related agents that are useful leads to antidiabetic structures but also points out that these agents appear to be non-competitive inhibitors of PTP1B and have indications that they may bind at an allosteric site in this phosphatase.

#### THOUGHT-PROVOKING QUESTIONS

Just to (perhaps) throw what in the UK is known as “a spanner in the works,” meaning identifying a potential problem with published data, a paper in 2020 by Rive-

ra-Chavez et al.<sup>6</sup> pointed out that most of the published work on PTP1B inhibitors used a truncated form of the human enzyme (PTP1B<sub>1-300</sub>) rather than the full-length enzyme with 400 residues.

In their studies, they found interesting inhibitory compounds from an extract of the fungus *Aspergillus terreus* (IQ-046), most of which were known natural products, including butyrolactone I and IV and, interestingly, lovastatin (aka mevinolin) and chrysamide B (structures not shown). From details given in the paper, it is noted that currently only five other natural products have been shown to be inhibitors of the full-length enzyme, which brings up the “spanner in the works!” viz: questions about the comparison of relationships established using the “normal” truncated enzyme.

The data in the first paper above with TNBCs is “self-contained” but further studies need to take into account the probable presence of other important binding sites on what was thought to be a “common target.”

*Thus, the “take home lesson is”: any natural products chemist wishing to study the effects of their compound(s) by using a biological assay with an isolated enzyme, needs to consider what is known biochemically and physiologically about the enzyme they are using and ask the relevant questions of any biologist with whom they are collaborating.*

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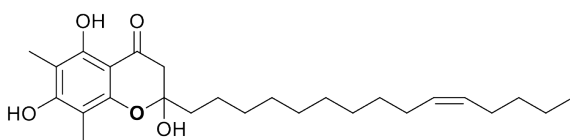
## HOT TOPICS IN PHARMACOGENOSY:

### So What About the Other Half of Kinase Inhibitor Activities?

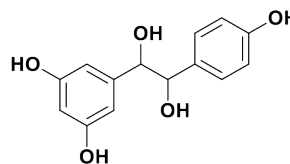
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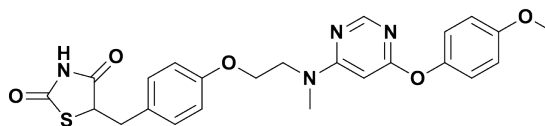
#### Structures



1. Jamunone M



2, Tricuspidatin B



3. Lobeglitazone

***Thus, the “take home lesson is”:  
any natural products chemist wishing to study the effects of  
their compound(s) by using a biological assay with an isolated enzyme,  
needs to consider what is known biochemically and physiologically  
about the enzyme they are using and ask the relevant questions  
of any biologist with whom they are collaborating.***



# Meet a New ASP Member

## Dr. Daniel Udvary



*Dr. Daniel Udvary is our featured new member in this issue of the Newsletter. He received his PhD from Johns Hopkins with Professor Craig Townsend and performed postdoctoral work with Professor Brad Moore at the Scripps Institution of Oceanography. After performing exciting bioinformatics research at Warp Drive Bio for several years, he now works at the Department of Energy's Joint Genome Institute (JGI) where he is one of the founding members of the secondary metabolites group and co-host of the Podcast "Natural Prodcast." We are pleased to officially welcome Dr. Udvary to the ASP!*

By Wendy Strangman, PhD

### What is your scientific background?

I first got interested in pharmacognosy through molecular biology as an undergraduate. A mentor encouraged me to stop thinking about a career in chemical synthesis and really look at what the possibilities of biosynthetic chemistry were. As a result, I hedged that bet and joined Craig Townsend's lab at Johns Hopkins, where he did a lot of both. While there I worked on biosynthesis of aflatoxin and got my first taste of bioinformatics while earning my PhD. I continued with this new love of bioinformatics during a postdoc with Brad Moore at Scripps Institution of Oceanography in San Diego, where I got to help with some structural biology and engineering of polyketide synthases. I then worked on the first *Salinispora* genome sequence (sequenced by JGI!) as we tried to find all the biosynthetic pathways in it before tools like antiSMASH were around. After that, I took a faculty position at the University of Rhode Island's College of Pharmacy, where I worked on tools for genome mining. I then left that to join Warp Drive Bio in Cambridge, MA (since acquired by Ginkgo Bioworks), which was a fantastic experience in big data secondary metabolomics-based drug discovery. When my spouse took a faculty position in California, I made my way to Berkeley Lab, eventually becoming one of the founding members of JGI's new Secondary Metabolites group: <https://jgi.doe.gov/our-science/science-programs/secondary-metabolites/>.

### What are your research interests in pharmacognosy?

I am probably more interested in the "cognosy" than the



Dr. Daniel Udvary

"pharma" these days. As part of the US Department of Energy (DOE), JGI's mission for secondary metabolism lies in its relation to bioenergy (biomass to biofuels/bioproducts) and the environment (biogeochemical cycle characterization), and not necessarily in medicine. Over the last few years we have recognized that a lot of the hardest challenges we have in understanding genomic information are also the routine challenges we've always had in secondary metabolism, and so we think that by putting more focus on developing technology for explor-

*continued on page 18*

**Over the last few years we have recognized that a lot of the hardest challenges we have in understanding genomic information are also the routine challenges we've always had in secondary metabolism, and so we think that by putting more focus on developing technology for exploring secondary metabolism we can better complement all of our genomic tools.**

## Meet a New ASP Member

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**But, also, more broadly I want to bring our field and the voices of our collaborators to scientists who might not know much about it or are curious to learn more, so we try to aim it at a science-avid audience.**

*continued from page 17*

ing secondary metabolism we can better complement all of our genomic tools. Plus, understanding how secondary metabolism is used in nature is also really important to understanding chemical ecology and how we might harness that for increasing crop yields for biofuels, for example. JGI is a DOE user facility, which means people submit proposals to us for interesting and challenging integrative science projects relevant to DOE's mission, and so my main job is to do what I can to enable secondary metabolism analysis for projects that need it. Partially spinning out of that, and also because it is something I am really interested in, my own research work involves developing new ways to interact with secondary metabolism genetic data and thinking about how best to improve and refine the vast amounts of data we have and are continuing to produce at JGI.

In addition to research, I have been doing some outreach through JGI's podcast "**Natural Prodcast**," (<https://jgi.doe.gov/category/podcasts/natural-prodcast/>) where I talk about the science behind secondary metabolism and interview awesome people who do great work in it. The main goal here is to introduce pharmacognosy-knowledgeable people to JGI's capabilities and strategic directions in this area and talk about what we are doing and want to do. But, also, more broadly I want to bring our field and the voices of our collaborators to scientists who might not know much about it or are curious to learn more, so we try to aim it at a science-avid audience. I feel like pharmacognosy has always been highly interdisciplinary and is at its strongest when we bring in insight and skills from scientists from all disciplines of biology and chemistry (and beyond). So, I am hoping that even one person with some emerging technology or different perspective or a graduate student or postdoc figuring out what they want to do next hears it and is inspired to bring their abilities to secondary metabolism and contribute to advancing the field! And, by the way, we are always on the lookout for possible interviewees, so if you have a good story, reach out to me!

**I feel like pharmacognosy has always been highly interdisciplinary and is at its strongest when we bring in insight and skills from scientists from all disciplines of biology and chemistry (and beyond).**

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### **How did you hear about the ASP, and why did you decide to join?**

I have always known about ASP, having attended its great conferences as a graduate student and postdoc. ASP, with its great track record in helping early career researchers, has always been a great choice for professional membership in our field.

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

I would like to gain more professional contacts as I try to build out some community efforts in genome mining through my work at JGI and introduce readers to JGI's **User Programs** and **Annual Genomics of Energy & Environment Meeting**. (<https://jgi.doe.gov/user-programs/> ) (<https://usermeeting.jgi.doe.gov>) Long term, I would love to do more to contribute back to the community however I can.

### **What other scientific societies do you belong to?**

Not many, really. I am in the Society for Industrial Microbiology and Biotechnology, and I kind of drop in and out of the American Chemical Society.

### **What do you like doing in your spare time – movies, activities, etc.?**

I like to hike, and I brew beer, which is my connection to nature and microbiology other than only thinking about them in the abstract by way of a computer screen. I recently came back from some time in and around Paris, so I have been cooking a lot, trying to replicate from memory some of the great meals I had while traveling through Europe. And normally I would say video games here, but I spend so much time on Zoom meetings and normal work staring at a screen, so I have been playing a lot more board and card games. I am looking forward to being fully vaccinated and just getting out and seeing friends in person again. ■

# New Members of ASP Summer 2021

ASP would like to welcome our new members. The Society's main objectives are to provide the opportunity for association among the workers in pharmacognosy and related sciences, to provide opportunities for presentation of research achievements, and to promote the publication of meritorious research. New members include 12 full members and 33 associate members. We look forward to meeting you and learning more about you and your work.



## American Society of Pharmacognosy

### FULL MEMBERS

**Dr. Amar Chittiboyina**  
University of Mississippi  
United States  
Principal Research Scientist

**Dr. Dabney Dixon**  
Georgia State University  
United States  
Professor

**Dr. Edmund Graziani**  
Apertor Pharmaceuticals Inc.  
United States  
Chief Executive Officer

**Dr. Erick Leggans**  
Grinnell College  
United States  
Assistant Professor

**Dr. John Biggins**  
LifeMine Therapeutics  
United States  
Senior Scientist

**Dr. Kevin Penn**  
Ginkgo Bioworks  
United States  
Senior Organism Engineer

**Dr. Lyndon West**  
Florida Atlantic University  
United States  
Associate Professor

**Dr. Paul Price**  
Eastern Michigan University  
United States  
Assistant Professor

**Dr. Susan Meschwitz**  
Salve Regina University  
United States  
Associate Professor

**Dr. Tracy Gibbs**  
Nano9 Labs Inc.  
United States  
Chief Science Officer

**Dr. Ahilya Singh**  
Western Sydney University  
Australia

**Dr. Kuei-Hung Lai**  
Taipei Medical University  
Taiwan  
Assistant Professor

### ASSOCIATE MEMBERS

**Ms. Hanan Albatineh**  
The University of Mississippi  
United States  
PhD Student

**Mr. Sadam Adebayo**  
Ahmadu Bello University  
Nigeria  
Postgraduate Student

**Dr. Adetomiwa Adeniji**  
North-West University  
South Africa  
Postdoctoral Research Fellow

**Mr. Bishnu Adhikari**  
The University of Alabama  
United States  
PhD Student

**Dr. Ryath Al-Hemedawi**  
Medical City Baghdad  
Iraq

**Dr. Buddha Bahadur Basnet**  
Nepal Academy of Science  
and Technology  
Nepal  
Research Associate

**Miss Maria Luz Tibaldi Bollati**  
Universidad Nacional de Córdoba  
Argentina

**Mr. Ratandeep Chauhan**  
Amity University  
India

**Mr. Bhuwan Chhetri**  
Georgia Institute of Technology  
United States  
PhD Student

**Mr. Jacob Chappell**  
Virginia Tech  
United States  
PhD Candidate

**Dr. Pierpaolo Cordone**  
University of South Florida  
United States  
Postdoctoral Fellow

**Miss Scarlet Ferrinho**  
University of St. Andrews  
Scotland  
PhD Student

**Dr. Romuald Fouedjou**  
International Institute of  
Tropical Agriculture  
Benin  
Visiting Researcher

**Mr. Terungwa Hange**  
University of Lagos  
Nigeria

**Ms. Madhavi Hewadikaram**  
SLINTEC Academy  
Sri Lanka  
PhD Student

**Dr. Saiqa Ishtiaq**  
University of the Punjab  
Pakistan  
Associate Professor

**Mr. Jonathan Jeyaraj**  
The Ohio State University  
United States  
PhD Student

**Miss Pamela Karasmilova**  
Stevens  
United States

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# New Members of ASP Summer 2021



American Society  
of Pharmacognosy

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**Ms. Michelle Katemauswa**

University of Oklahoma  
United States  
Student

**Miss Bharathi Kolluru**

Roger Williams University  
United States  
Student

**Dr. Cuauhtemoc Licona**

Tecnológico de Monterrey  
Mexico  
Group Leader

**Mr. Mosab Mohammed**

Elsheikh Abdallah Elbadri University  
Eritrea  
Head of Department, Medical Parasitology

**Ms. Kalindi Morgan**

University of British Columbia  
Canada  
PhD Candidate

**Mr. Moses Mutungi**

Chinese Academy of Sciences  
China

**Mr. Oluwadamilola Oloko**

Morgan State University  
United States

**Dr. Kathleen Rein**

Florida International University  
United States  
Professor

**Dr. Checo Rorie**

North Carolina Agricultural and  
Technical State University  
United States  
Associate Professor

**Ms. Lia Lozano Salazar**

University of Connecticut  
United States

**Dr. Seethapathy G. Saroja**

Morgan State University  
United States  
Postdoctoral Fellow

**Ms. Jonida Trako**

University of Michigan  
United States  
Undergraduate Student

**Dr. Sam Waterworth**

University of Wisconsin, Madison  
United States  
Postdoctoral Research Associate

**Ms. Shanna White**

University of the District of Columbia  
United States  
Graduate Student/Research Assistant

**Dr. Saroj Yadav**

Sharda University  
India  
Associate Professor

# 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.pharmacognosy.us](http://www.pharmacognosy.us).  
If you have a conference or event you would like mentioned, please send us relevant information, including any graphics, at [asp.newsletter@lehman.cuny.edu](mailto:asp.newsletter@lehman.cuny.edu).

A number of scientific conferences have been delayed or canceled due to the COVID-19 pandemic. Please check with conference organizers about the status of any in-person conferences.

## Vanguards of Natural Product Research 2021

Virtual Symposium Series

July 16, 23, and 30, 2021

[aspmeetings.pharmacognosy.us](http://aspmeetings.pharmacognosy.us)

## ACS Webinars

Every weekday 2 PM ET / 11 AM PT

<https://www.acs.org/content/acs/en/acs-webinars.html>

## CANCELED

American Society of Pharmacognosy 2021  
Annual Meeting

July 24-28, 2021

Grand Rapids, Michigan

<http://aspmeetings.pharmacognosy.us>

## C&EN Webinars

Various Days and Times

<https://cen.acs.org/collections/webinars.html>

## ASP Natural Product Sciences Webinar

Bimonthly Zoom Seminars

Thursdays 4 PM ET / 1 PM PT

[www.pharmacognosy.us/natural-product-sciences-webinar/](http://www.pharmacognosy.us/natural-product-sciences-webinar/)

69<sup>th</sup> International Congress and  
Annual Meeting of the Society  
for Medicinal Plants and  
Natural Product Research (GA)

Sept. 5-8, 2021

Online

[www.ga-congress.org](http://www.ga-congress.org)



American Society  
of Pharmacognosy

# From the Archives: The Chicago Annual Meeting, 1974



Christine Jankowski

## A NOTE FROM THE ARCHIVIST

Greetings! My name is Christine Jankowski, and I am the new the archivist and records coordinator for the Lloyd Library & Museum. I would like a chance to say thank you to the Society's *Newsletter* committee for reaching out and asking for me to pick up this column. Thank you!

I would also like to give a brief explanation on my history with the American Society of Pharmacognosy. I have been processing the Norman R. Farnsworth Papers at the Lloyd ever since my capstone project in the fall of 2017. Since completing that portion and earning my Master's, I returned for the summers of 2019 and 2020 to continue processing other parts of his collection. You can imagine as big as his personality was, he was also a man of many, many papers.

To further illustrate my interest in pharmacy, my father is a compounding pharmacist in Cedarburg, Wisconsin (John R. Jankowski, RPh, UW-Madison 1980. Go Badgers!) Thanks to him, I have held an interest in the vast history of pharmacology ever since I was a child wandering around his store and admiring his collection of antique mortar and pestles, medicine jars, and show globes.

With that all being said, I look forward to sharing your history and learning more in the process. Please feel free to reach out to me with any questions or comments about the ASP!

Sincerely,  
Christine

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*By Christine Jankowski, MA*

**W**ho remembers having face-to-face conversations that were not on Zoom? How about meetings that required travel to someplace new or far away? Or to be a tourist? The American Society of Pharmacognosy has had numerous meetings over the years. From its start as the Plant Science Seminar in 1923 to the Society's incorporation in 1959, annual conferences were held in and around university towns like Philadelphia, Milwaukee, and even Vienna. As with most meetings, each location was unique and hosted memorable events. In this article, we will investigate some highlights of the fifteenth annual meeting held in Chicago in 1974.

The Executive Committee of the ASP voted each year for the following year's meeting location. Voting for

the location of the 1974 meeting came down to Chicago or Lake Geneva, Wisconsin – "Up North" for Chicagoans. About two years prior, Dr. Norman R. Farnsworth was selected to be the chairman of the local program committee for the Chicago meeting. This role entailed Farnsworth to conduct research for housing and meals for attendees, and ultimately Chicago was selected.

This meeting was important as changes were brought up about the Society's publication, *Lloydia*, and the selection of a Society logo. Due to lower membership, *Lloydia* editor Dr. Arthur Schwarting reported at the business meeting that financing the publication would be difficult if memberships did not increase. Ideas for changes to the publication included shortening the content, using

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Proposed Designs for ASP Emblem/Logo



One



Two



Three



Four

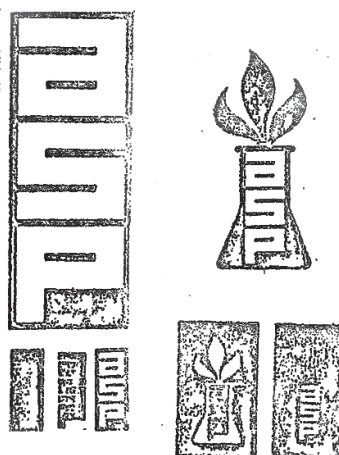
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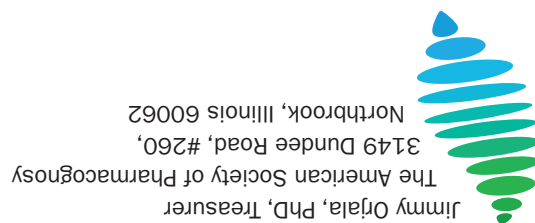
more professional papers from subscribers and members, or even increasing circulation. As for the logo, five designs were created and mailed out to every member in the Society. They were to vote high to low, most favorite to least favorite. Of the emblem designs provided, emblem design #5 was selected: a silhouette of an Erlenmeyer flask with blocked letters spelling "ASP" down the glass and spewing three leaves from its neck.

By the following year, circulation of *Lloydia* increased. The ASP also requested more backing from the Lloyd Library and made the publication bimonthly. It would later be renamed *The Journal of Natural Products* and is still published monthly to this day. The logo that was adopted was used for many years on everything from stationary to newsletters until a new logo was introduced in 2020. ■

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Five



### **Full Membership**

Full membership is open to any scientist interested in the study of natural products.

Current membership dues and *Journal of Natural Products* subscription rates can be found at [www.pharmacognosy.us](http://www.pharmacognosy.us).

### **Associate Membership**

Associate membership is open to students of pharmacognosy and allied fields only. These members are not accorded voting privileges.

Current membership dues and *Journal of Natural Products* subscription rates can be found at [www.pharmacognosy.us](http://www.pharmacognosy.us).

### **Emeritus Membership**

Emeritus membership is open to retired members of the Society who maintained membership in the Society for at least five years.

Current membership dues and *Journal of Natural Products* subscription rates can be found at [www.pharmacognosy.us](http://www.pharmacognosy.us).

### **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. John H. Cardellina • Dr. John M. Cassidy, Oregon State University  
Dr. Geoffrey A. Cordell, University of Illinois at Chicago • Dr. Gordon C. Cragg, National Institutes of Health  
Dr. Harry H.S. Fong, University of Illinois at Chicago • Dr. Ikhlas Khan, University of Mississippi •  
Dr. A. Douglas Kinghorn, Ohio State University • Dr. Robert J. Krueger, Ferris State University  
Dr. Roy Okuda, San Jose State University • Dr. James E. Robbers, Purdue University  
Dr. E. John Staba, University of Minnesota • Dr. Otto Sticher, Swiss Federal Institute of Technology  
Dr. Barbara Timmermann, University of Kansas • Dr. Hildebert Wagner, University of Munich

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

**Jimmy Orjala, PhD, Treasurer, The American Society of Pharmacognosy,**  
3149 Dundee Road, #260, Northbrook, Illinois 60062. Email: [asphcog@gmail.com](mailto:asphcog@gmail.com)