



Clinical Science Trumpet

Newsletter of the Association of Clinical Scientists

Charles D. Hawker, Ph.D., M.B.A., FACS, Interim Editor

Vol. 44, No. 1—January 2024

JACKSONVILLE AWAITS THE ASSOCIATION'S 75TH ANNIVERSARY MEETING

Tuesday–Thursday, April 2–4, 2024 • Jacksonville Beach, Florida

by Jonathan B. Hoyne, Ph.D., FACS, and Charles D. Hawker, Ph.D., M.B.A. FACS

The 2024 ACS Annual Meeting, celebrating the 75th year of the Association, will be held in Jacksonville, Florida April 2–4, 2024. This meeting, the Association's 145th, sponsored by Mayo Clinic Florida, is being held in April instead of the Association's normal May schedule to avoid Florida's hot and humid weather. In addition, the meeting will have a Tuesday–Thursday format as every hotel in Florida has weddings booked every weekend from April through August.

The host hotel for the meeting will be the Hotel Casa Marina in Jacksonville Beach, FL and the meeting will be co-hosted by Margaritaville Hotel. The hotels are across the street from one another and both have views and beach

access to the Atlantic Ocean. Casa Marina Hotel was established in 1925 and is a member of Historic Hotels of America. As a historic hotel, its style, amenities and number of rooms are typical of a boutique hotel. ACS has also contracted with the Margaritaville Hotel, which is across the street. This hotel stands as a contrast for those who prefer their rooms and amenities more modern. Details of both hotels can be found on the ACS website at <http://clinicalscience.org> and click the “Meetings” tab [or copy/paste into your browser: <http://clinicalscience.org/meetings/html#Accommodations>].

The Program Committee, chaired by **Jonathan B. Hoyne, Ph.D.**, is developing another outstanding

agenda for attendees to both engage with outstanding clinical science and enjoy. The overall meeting theme is *Tomorrow's Diagnostics and Therapeutics Today*. The Tuesday morning session theme of “*Neuropathology Disease and Treatment*” begins with the Abraham J. Gitlitz Honorary Lecture, presented by **Dennis W. Dickson, M.D.**, the Robert E. Jacoby Professor for Alzheimer's Research at Mayo Clinic, Jacksonville. He is the winner of the 2011 Potamkin Prize for Research in Pick's, Alzheimer's and Related Diseases from the American Academy of Neurology. The program continues on Tuesday afternoon with two sessions: the first with a theme of “*Transforming Transplant*” and the second on “*Emerging Therapeutics*.”

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Jacksonville, Florida at sunset

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Jacksonville in 2024...

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The historic Casa Marina Hotel, Jacksonville Beach, Florida



The modern Margaritaville Hotel, Jacksonville Beach, Florida

Other significant presentations will be a luncheon seminar by **Jorge M. Mallea, M.D.**, also of the Mayo Clinic Florida on *ex vivo* lung perfusion. The Annual Awards Banquet speaker, **Russell Brodie** of Florida Fish and Wildlife Marine Science Research Institute and Jacksonville University will present a lecture on “How Fish are Managed in Florida—an overview of the Florida Fish and Wildlife Conservation Commission.”

The Wednesday morning program will feature research conducted in the Department of Laboratory Medicine and Pathology at Mayo Clinic in Florida. An introduction to the department will be by the current chair, **Dr. Aziza Nasar**, and will precede scientific lectures by department staff including lectures on the use of AI in digital pathology and microbiology among other topics.

On Wednesday afternoon, the Association’s traditional cultural tour takes us to St. Augustine, the oldest permanently occupied city of European origin in the continental United States. We will travel from Mayo Clinic by bus, where we will tour the Spanish fort, Castillo de San Marcos. The fort is the oldest surviving masonry fortress in the in the continental U.S., built by the Spanish between 1672 and 1695 to defend their claims in the new world. During its long history, the fort was never captured. Its walls are made of coquina, a sedimentary soft limestone comprised of seashells, which was impenetrable to enemy attack and also fire resistant. The tour will consist of a guided tour and lecture on the history of the fort around the outside of the fort followed by a self-guided exploration of the interior of the fort.

At the Annual Reception and Awards Banquet on Wednesday evening, several awards will be presented, including the Young Clinical Scientist Award to **Anthony Maus, Ph.D.**, the FW




Castillo de San Marcos, St. Augustine, Florida

Jacksonville in 2024...

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Sunderman, Jr., Diploma of Honor to **Joshua A. Bornhorst, Ph.D.**, the Clinical Scientist of the Year Award to **Shuko Harada, M.D.**, and the Gold Headed Cane award to **Charles D. Hawker, Ph.D., M.B.A.** See elsewhere in this newsletter for biographical sketches and photos of these awardees.

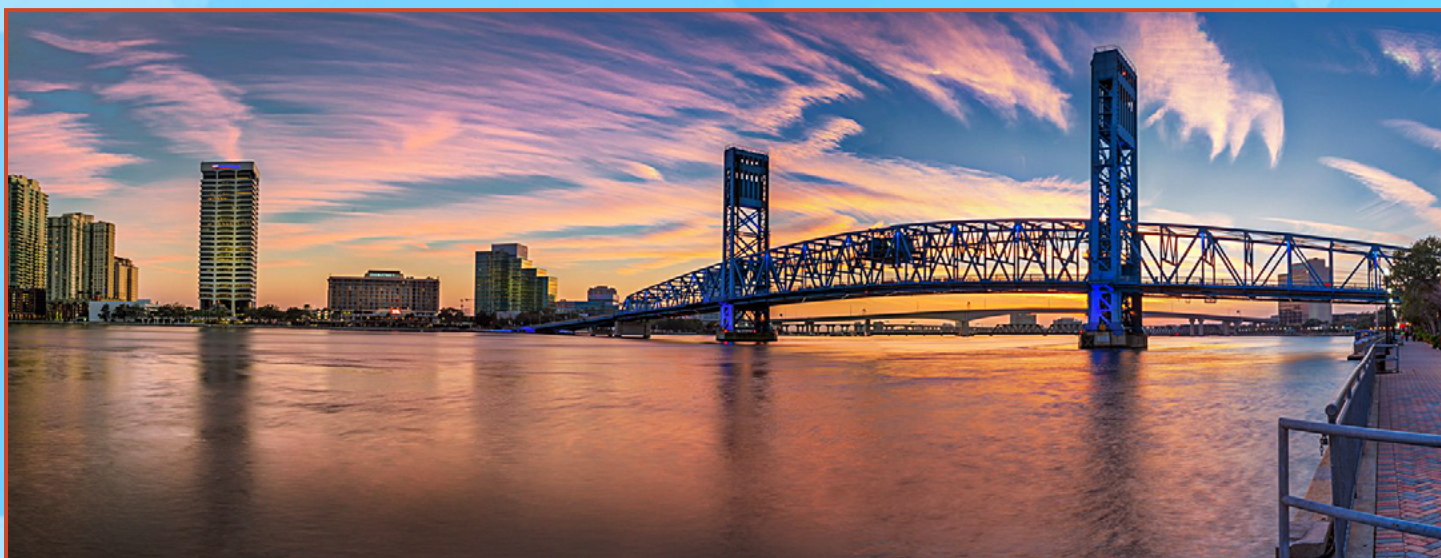
The Program Committee for the Annual Meeting includes: **Jonathan B. Hoyne, Ph.D., DABCC, FACSc**, Mayo Clinic – Florida, Chair, **Christopher Marquez, M.D.**, Mayo Clinic – Florida, **Melissa E. Murray, Ph.D.**, Mayo Clinic – Florida, **Nina Tatevian, M.D., Ph.D., FACSc**, Brown University, **Christopher Crutchfield, Ph.D., FACSc**, Northwestern University, and **Charles D. Hawker, Ph.D., M.B.A, FACSc** (ex officio). 



The unique coquina stone at St. Augustine



The Mayo Clinic Hospital, Jacksonville, Florida



Jacksonville, Florida

Among the Speakers to Present in Jacksonville

The Abraham J. Gitlitz Honorary Speaker

DENNIS W. DICKSON, M.D.

Robert E. Jacoby Professor for Alzheimer's Research, Mayo Clinic Jacksonville

Luncheon Speaker

JORGE M. MALLEA, M.D.

Mayo Clinic Florida "Ex Vivo Lung Perfusion"

Annual Awards Banquet Speaker

RUSSELL BRODIE

Florida Fish and Wildlife, Marine Science Research Institute, Jacksonville University



Dr. Dennis Dickson



Dr. Jorge Mallea



Russell Brodie



Since 1949

**ASSOCIATION OF
CLINICAL SCIENTISTS**
clinicalscience.org



This year's Meeting table runner will recognize the Association's 75th anniversary

The 2024 ACS Awardees

Clinical Scientist of the Year

SHUKO HARADA, M.D., FACSc

Shuko Harada, M.D., FACSc is currently Professor and Vice Chair for Diversity, Equity, and Inclusion (DEI), Department of Pathology at University of Alabama at Birmingham (UAB).

Dr. Harada received her Medical Degree and completed an Internal Medicine residency from University of Tokyo Faculty of Medicine, Japan. After three years working as an internist, subspecialized in diabetes and endocrinology, she crossed the Pacific Ocean to the US to join Dr. Leonard Jarett's laboratory at the University of Pennsylvania as a postdoctoral research fellow. She stayed there as Senior Research Investigator and Research Assistant Professor. Her research topic was insulin signaling and its gene regulation. She became interested in precision medicine/molecular diagnostics and then completed a residency and fellowship training in AP/CP (anatomic and clinical pathology), surgical pathology and molecular genetic pathology at Drexel University, University of Pennsylvania, and Johns Hopkins University, respectively.



Dr. Shuko Harada

She joined the University of Alabama at Birmingham (UAB) in 2011 as an Assistant Professor of Pathology, and was promoted to tenured Professor in nine years. She has been leading the Molecular Diagnostic Laboratory at UAB Hospital, expanding the oncology and infectious disease molecular test menu, which built a fundamental ground for a cutting-edge joint venture, the "Genomic Diagnostic Laboratory." She has been playing a major role in teaching at UAB as well as on national and international levels. She has given many invited lectures including IAP (International Academy of Pathology) in Thailand and Jordan, Japanese Society of Pathology, and CME in Pathology in India. She also serves as the Program Director for the UAB's Molecular Genetic Pathology Fellowship and mentors fellows and junior faculty members.

Dr. Harada is one of the most collaborative clinical faculty in the department. She has published over 85 peer-reviewed manuscripts in high impact-factor journals, 41 of them as first or corresponding author, with 34 of them published since 2020. She is on the editorial boards for the *Annals of Clinical & Laboratory Science*, the *American Journal of Clinical Pathology* (Associate Editor for Molecular Diagnostics), *Lab Medicine*, and *Modern Pathology*.

Dr. Harada has been participating in leadership roles at the national level of several professional societies, including Association of Pathology Chairs (APC), National Comprehensive Cancer Network (NCCN), American Society of Clinical Pathology (ASCP), Association of Clinical Scientists, and the Association for Molecular Pathology (AMP). Recently, as Vice Chair for DEI, she has taken a leadership role for the Faculty Association for Asian American Pacific Islander (AAPPI) as well as the departmental DEI committee.



F.W. Sunderman, Jr. Diploma of Honor

JOSHUA A. BORNHORST, PH.D., DABCC, FACSc

Joshua A. Bornhorst, Ph.D., DABCC, FACSc served the Association of Clinical Scientists as Treasurer for two terms (2014 – 2018) and President in 2021. He was the Program Committee Chair for the 2016 Annual Meeting in Hot Springs and Little Rock, Arkansas and the 2023 Annual Meeting in Rochester, Minnesota.



Dr. Joshua Bornhorst

He is a Consultant and Assistant Professor in the Department of Laboratory Medicine and Pathology at the Mayo Clinic in Rochester where he serves as Co-Director of the Clinical Immunoassay and Metals Laboratories. His research interests include neurological and tumor markers, as well as the investigation of allergy component markers and assessment of the presence of trace and toxic metals.



Previously he was Associate Professor of Pathology in the School of Medicine at the University of Arkansas for Medical Science. He was technical and operations director of the AP and CP sections of the University of Arkansas Clinical Laboratory and was also the Director of the Chemistry, Toxicology, Immunology, Pediatric Clinical Laboratory, and Point-of-Care Testing sections of the University of Arkansas hospital system.

Dr. Bornhorst received a PhD in biochemistry from the University of Colorado at Boulder under the mentorship of Dr. Joe Falke and entered the clinical chemistry fellowship program at the University of Utah/ARUP Laboratories. At Arkansas, he worked to fully automate chemistry testing, reduce turnaround time, improve results reporting, and expand in-house testing menus, as well as educate pathology residents.

He has received several honors and awards throughout his career and is a past recipient of the AACC Scientific Achievement by a Young Investigator award (2009). He is a Diplomate of the American Board of Clinical Chemistry and a Fellow of the National Academy of Clinical Biochemistry. Past AACC responsibilities include serving on the Board of Editors of Clinical Laboratory News. He has been a Chair of the Management Sciences and Patient Safety Division of AACC and was a previous member of the AACC Publications Committee.

2024 ACS Awardees continued

Gold-Headed Cane Award

CHARLES D. HAWKER, PH.D., M.B.A.

Dr. Charles Hawker is honored to be the recipient of the Association of Clinical Scientists Gold Headed Cane Award in 2024, which will mark the 50th anniversary of when he first joined the Association (1974). In November of that year, he presented his first paper to ACS on *Practical Aspects of Radioimmunoassay of Parathyroid Hormone* at the Applied Seminar on the Laboratory Diagnosis of Skeletal, Muscular, and Nervous Diseases. Over the years he presented nearly two dozen papers on laboratory automation in addition to parathyroid hormone radioimmunoassay.

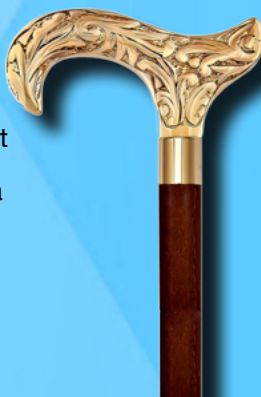
Charlie served ACS as Vice President in 2008, President in 2009, and as Secretary from 2011–2015. He was a member of the Program Committees for the ACS meetings in Salt Lake City in 1997 and 2002 and Chair of the Program Committee for the Salt Lake City meeting in 2015. The Association has previously honored Charlie with the Diploma of Honor in 2011 and the Clinical Scientist of the Year Award in 2015.

He retired as Scientific Director for Automation and Special Projects after 26 years at ARUP. He also retired as Professor (Adjunct) of Pathology in the University of Utah, School of Medicine. Prior to joining ARUP, over a twenty year period, he held various positions in research and development and management at Laboratory Procedures, Inc. (Upjohn) and SmithKline Beecham Clinical Labs. He has received numerous awards including AACC's highest award, the Outstanding Lifetime Achievement Award in Clinical Chemistry and Laboratory Medicine, and other awards from the National Academy of Clinical Biochemistry (NACB), the Clinical and Laboratory Standards Institute (CLSI), and the Association for Laboratory Automation.

Charlie was a co-author of chapters on clinical laboratory automation in the 4th through 7th Editions of the *Tietz Textbook of Clinical Chemistry and Molecular Diagnostics*, and the 6th through 8th Editions of the *Tietz Fundamentals of Clinical Chemistry*. He is a frequent lecturer on laboratory automation to national and international audiences. He holds three patents and has published 50 peer-reviewed papers, 18 book chapters or invited reviews, three invited editorials, and 49 abstracts.



Dr. Charles Hawker



Young Clinical Scientist Award

ANTHONY MAUS, PH.D.

Anthony (Tony) Maus received his Ph.D. from University of Wyoming under the mentorship of Franco Basile where he worked on methods for identification of antibiotic resistant bacteria using MALDI-ToF mass spectrometry. Immediately after graduate school, he joined the Department of Laboratory Medicine and Pathology at Mayo Clinic and developed clinical tests for the Clinical Mass Spectrometry and Clinical Forensic Toxicology Laboratories. During this time, he developed innovative solutions for identification of variants of insulin-like growth factor-1 and a novel quantitation technique. He was also a key member of a team that published numerous papers on development of a mass spectrometry-based test for SARS-CoV-2 based on detection of tryptic peptides. Additionally, he worked on countless improvements to historical methods that positively impacted the laboratory and patient care, such as lowering the lower limit of quantitation of thyroglobulin and improving the precision of measurements of vitamin B6.



Dr. Tony Maus

Currently, Tony holds the title of Associate Consultant I and in this role he supports labs throughout the Division of Clinical Biochemistry and Immunology at Mayo Clinic by serving as technical resource for laboratory and development staff. Implementation of emergent technologies is a passion of his, and he is currently working to bring ion mobility instrumentation to the clinical laboratories. Performing discovery and proof-of-concept studies on potentially clinically useful biomarkers is also significant component of his work, with extensive recent effort going into evaluation of several biomarkers of neurocognitive diseases. **Dr. Maus** was awarded the Young Clinical Scientist Award for his presentation at the 2023 Annual Meeting entitled "In-solution Ion Pairing Benefits Measurements, Instruments, and the Environment." The award will be presented at the 2024 Annual Meeting in Jacksonville, FL.



At ARUP **Dr. Hawker** installed several major automation and robotic systems that helped make ARUP the most automated clinical laboratory in North America. These systems collectively improved productivity and quality, especially enabling ARUP to become the first laboratory to achieve Six-Sigma quality levels for lost specimens. He later developed an automated camera system that used optical character recognition (OCR) to identify specimens mislabeled by patient name.

Preliminary Program Schedule for April 02-04, 2024

Tentative, subject to change. All events, unless otherwise noted, are held at:
Hotel Casa Marina, Jacksonville Beach, Florida

Tuesday, April 02

Morning Session

- 8:30 a.m. Abraham J. Gitlitz Memorial Lecture
Dennis Dickson, M.D., Mayo Clinic
Brain banking and its contribution to research on a range of brain disorders
- 9:15 a.m. **speaker t.b.d.**
Biomarkers of Neurodegeneration
- 10:00 a.m. Refreshment Break
- 10:30 a.m. **speaker t.b.d.**
C90RF72 Biomarkers for FTD
- 11:00 a.m. **Melissa Murray, Ph.D.**
Pathobiology of Alzheimer's Disease
- 11:30 a.m. Session adjourns for Luncheon with Speaker
- 12:00 p.m. Luncheon Speaker
Jorge Mallea, M.D., Mayo Clinic
Ex vivo Lung Perfusion

Afternoon Session

- 1:00 p.m. **C. Burcin Tanner, M.D., Mayo Clinic**
Transforming Transplant
- 1:30 p.m. **Linnea Baudhuin, Ph.D., Mayo Clinic (Rochester)**
Kidney and Transplant Genomics
- 2:00 p.m. **Rohan Goswami, M.D., Mayo Clinic**
Artificial Intelligence in Heart Transplant
- 2:30 p.m. **Fadi E. Salem, M.D., Mayo Clinic**
Transforming the Future of Pre-implantation Kidney Biopsy
- 3:00 p.m. Refreshment Break
- 3:30 p.m. **Brad S. Hoppe, M.D., M.P.H., Mayo Clinic**
Carbon Ion Therapy

- 4:00 p.m. **Sikander Ailawadhi, M.D., Mayo Clinic**
Chimeric Antigen Receptor T-Cell Therapy

- 4:30 p.m. **Shane A. Shapiro, M.D., Mayo Clinic**
Use of Bone Marrow Aspirate Concentrate in Orthopedic Surgeries

- 5:00 p.m. **Nisha Durand, Ph.D., Mayo Clinic**
Production and Use of Therapeutic Stem Cells [to be confirmed]

- 5:30 p.m. Session adjourns

Evening

- 6:00 p.m. — Welcome Reception



Jacksonville, Florida at night

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Wednesday, April 03

Morning Session at Mayo Clinic

8:00 a.m.	Welcome and Introduction
	Aziza Nassar, M.D., M.P.H., Mayo Clinic: Chair, Department of Laboratory Medicine and Pathology
8:15 a.m.	Ravinder Singh, Ph.D., Mayo Clinic <i>Topic T.B.D.</i>
8:25 a.m.	Jane J. Hata, Ph.D., Mayo Clinic <i>Artificial Intelligence in gram positive identification</i>
8:45 a.m.	Zach Z. Thompson, M.D., Mayo Clinic <i>CD34+ Section in Bone Marrow Transplant for Autoimmune Disease/ Scleroderma</i>
9:05 a.m.	Mohmed Elrefaei, M.D., Ph.D., Mayo Clinic <i>Topic T.B.D.</i>
9:25 a.m.	Jonathan B. Hoyne, Ph.D., Mayo Clinic <i>Nimodipine Quantitation by LC-MS/ MS: Application to Treatment after Subarachnoid Hemorrhage</i>
10:05 a.m.	Z. Akkus, Ph.D., Mayo Clinic <i>AI-Powered Digital Pathology Workflow</i>
10:25 a.m.	Nilufer Ertekin-Taner, M.D., Ph.D., Mayo Clinic <i>Genetics of Alzheimer's Disease</i>
10:40 a.m.	Session adjourns
10:45 a.m.	Bus for Laboratory Tours: Lung Bioengineering Hematology, Coagulation, Chemistry Labs Microbiology Lab HLA Lab, expansion space
12:30 p.m.	Laboratory Tours adjourn

Afternoon Cultural Tour

1:00 p.m.	Lunch and Tour: Castillo de San Marcus in St. Augustine Tour [ticket required]
5:00 p.m.	Bus returns to hotels

Evening

6:00 p.m.	Annual Awards Reception and Banquet
7:00 p.m.	Awards Presentations
8:30 p.m.	Banquet Speaker: Russell Brodie, Florida fish & Wildlife Research Institute / Jacksonville University <i>How Fish are Managed in Florida —Overview of the Florida Fish and Wildlife Conservation Commission</i>

Thursday, April 04

Morning Session

8:30 a.m.	Presentations of Submitted Abstracts
11:45 a.m.	Session adjourns
12:00 p.m.	Annual ACS Business Meeting
1:20 p.m.	Adjournment

Afternoon Session

1:30 p.m.	Abstract Presentations (continued)
3:00 p.m.	Poster Session
4:10 p.m.	Poster Session adjourns
4:15 p.m.	Abstract Presentations (continued)
5:00 p.m.	Session adjourns

Evening

7:30 p.m.	Musical and Art Show (light hors d'oeuvre reception)
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Jacksonville in 2024...

Accommodations

Accommodations for the 2024 ACS Annual Meeting will be hosted beachfront at both the Casa Marina and the Margaritaville Hotels in Jacksonville Beach, Florida. The Casa Marina Hotel in Jacksonville Beach, FL, which will be the headquarters hotel for the ACS meeting, was established in 1925 and is a member of Historic Hotels of America. This beachfront, boutique hotel features 16 parlor suites (the ACS contracted weekday rate is \$189 + taxes and fees) and 7 standard deluxe rooms (the ACS contracted weekday rate is \$139 + taxes and fees). The hotel's third floor features a rooftop bar and restaurant. The rooms optionally have a view of the Atlantic Ocean; the hotel also offers nearby parking. The hotel's address is 691 1st Street, N, Jacksonville Beach, FL 32250 (telephone 904-270-0025).

Because of the limited number of sleeping rooms at the Casa Marina, ACS has also contracted with the Margaritaville Hotel, which is across the street. This hotel stands as a contrast for those who prefer their amenities modern. This 202-room hotel opened its doors in 2021 and has many rooms with oceanfront views and patios (The ACS contracted room rate is \$177.65 + taxes & fees + \$27/day parking). The hotel has a spectacular pool, a fitness center, and three restaurants including the LandShark Lookout and the LandShark Bar & Grill. The hotel's address is 715 1st Street, N, Jacksonville Beach, FL 32250 (telephone 904-222-0222).

Both hotels are just steps from the beach and a very short walk to the Jacksonville Pier for a refreshing walk or some relaxing fishing. Nearby attractions include family friendly Adventure Landing water park and entertainment

complex. There is nightlife at the trendy Atlantic Beach and Jacksonville features a wonderful zoo, in addition to many cultural and natural attractions. Our group rate is available by calling each hotel and saying you are with the Association of Clinical Sciences or by clicking on the link below and booking reservations by March 2nd, 2024 at Margaritaville Hotel and by March 19th, 2024 for the Casa Marina. However, the Casa Marina is small and will fill up quickly, so don't wait that late.

Transportation

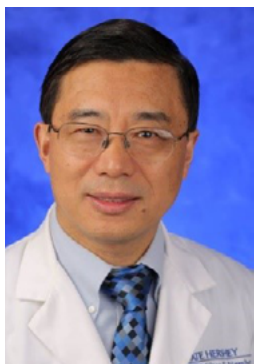
Jacksonville Beach is 24 miles from the Jacksonville International Airport (JAX). Travel time by car is about 35-45 mins depending on traffic. The hotels do not offer complimentary shuttles. Rental cars, Uber, Lyft, and taxis are available at the airport. UberX is about \$50 for a one-way trip. Uber Black runs a little over \$100 - \$125.

President's Corner

On behalf of the Association of Clinical Scientists (ACS), I would like to wish all our members a happy 2024.

2023 was a successful year for ACS. A great annual meeting was held in Rochester, Minnesota in May. The topics presented at the meeting were cutting-age, which included "Advances in Alzheimer's and Neurological Disorder Diagnostics", "Artificial Intelligence in Medicine", and "Applications of Pattern Recognition and Digital Imaging", etc. The attendance reached the highest after the pandemic. Thanks to the meeting organizing committee for your fantastic work.

To further promote the visibility of the Association and to recruit more clinical laboratory scientists to ACS, we started an initiative this year to use social media to showcase the activities of the Association. Our young fellows played critical roles in this initiative. For example, **Dr. Erica Fatica**, Treasurer of ACS posted several articles on LinkedIn. **Jessica Claus**, Chair of Young Fellows



Dr. Yusheng Zhu

Section Oversight Committee posted additional articles on Twitter (X) as well. These posts were well received and reposted by other members of the Association.

Because of our successful annual meeting, social media initiative, and recruitment by current members of the Association,

the membership of the association increased significantly. I encourage all current members to continue to recommend qualified colleagues to join the Association. Information on how to join the Association can be found at: <https://clinicalscience.org/>. Follow the tab "Membership."

The success of the Association is because of the continuous support of many of our members. One such distinguished member is **Dr. Robert Hunter**. **Dr. Hunter** recently retired after 35 years serving as Director of Scientific Sections of the Association. I would like

to thank **Dr. Hunter** for so many years' service to the Association and hope **Dr. Hunter** continues to support ACS. I have appointed **Dr. Kyle Kurek** as the new Director of Scientific Sections.

In April, 2024, the exciting 145th ACS Annual Meeting will take place in Jacksonville, Florida. The Meeting Organizing Committee is chaired by **Dr. Jonathan Hoyne**, Vice President of ACS. The topics of the meeting include "Neuropathology Disease and Treatment", "Transforming Transplant", and "Emerging Therapeutics".

At the 2024 Annual Meeting, we will also celebrate the 75th anniversary of the founding of ACS and honor the award winners this year. I encourage all our members to join us to celebrate this milestone of the Association. In addition, I will invite all our Past Presidents to attend the meeting and thank them for their extraordinary contributions to ACS.

I look forward to meeting all of you in Jacksonville, Florida.

Yusheng Zhu, Ph.D., D(ABCC), FACSc, FADLM
President (2023-2024)

Association of Clinical Scientists

Registration for 145th Meeting, Jacksonville, Florida, April 02–04, 2024

ATTENDEE INFORMATION

Last Name	First Name	Initial	Degree(s)
Institution		Street Address	
City	State	Postal/Zip Code	Country
Telephone Number	Fax Number	Email Address	

Please record number of persons for all No Charge (NC) items

Full Meeting Registration, Regular

For all Fellows of the Association and non-members attending the full Meeting; includes luncheons, one banquet ticket and continuing education credits, if desired

Unit Price (\$ US)	Number of Persons	Amount Charged
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\$500

Full Meeting Registration, Emeritus, Assoc. Fellows & Trainees and Invited Speakers Attending Full Meeting

For all Emeritus or Associate Fellows of the Association and all trainees, residents, and Fellows attending the full Meeting; includes luncheons, one banquet ticket and CE credits, if desired

\$200

Meeting Registration, Complimentary — day of Lecture

Speakers **only** attending the meeting for the day of their lecture — includes Luncheon, but excludes banquet

NC

NC

Single Day Registration — for either Tuesday or Thursday

Includes luncheon and continuing education credits, if desired

\$200

Tuesday, April 02

Luncheon presentation with Dr. Mallea. Indicate attendance for headcount

NC

NC

Welcome Reception — Open to all meeting registrants and accompanying persons. Indicate attendance for headcount.

NC

NC

Wednesday, April 03

Cultural/Historical Tour (Castillo de San Marcos in St. Augustine) — Includes bus and lunch

\$60

Extra tickets to Awards Banquet and Reception (subject to availability)

\$95

NC

Thursday, April 04

Luncheon, Annual Business Meeting (and presentation of travel grant awards)

Reserved seating for all Young Scientists, age 45 and under; included with full or single day registration (please indicate attendance for headcount estimation)

NC

NC

Musicale, with Wine and hors d'oeuvres Intermission

Complimentary for all attendees (please indicate attendance for headcount estimation)

NC

NC

Include Renewal of Dues (Fellows)

\$250

Renewal of Dues (Assoc. Fellows)

\$50

Total Payment Enclosed (in USD)

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Association of Clinical Scientists

Registration for 145th Meeting, Jacksonville, Florida, April 02–04, 2024

PAYMENT OPTIONS

Cancellation with full refund will be accepted until **March 27, 2024**.

1. Register securely on-line at <http://www.clinicalscience.org/annualmeeting.html#Registration>.
2. Complete and mail this form (**print both pages 10-11 of form**) with a check, payable to Association of Clinical Scientists, or with credit card information, to Association of Clinical Scientists, 6431 Fannin Street, MSB2.292, Houston, TX 77030
3. To charge using American Express, Visa, or MasterCard, call the ACS office at (713) 500-5381, Mon–Fri, 8:00 a.m.–5:00 p.m. Central Time. You may also fax this form with your credit card information to our secure Fax at (713) 500-0732.

CREDIT CARD INFORMATION

Credit card type

(check only one)

☐

Visa

☐

MasterCard

☐

American Express

Card number

Expiration (mo/yr)

Security Code (CVV) No.

Name on the card

Billing Address

City

State (Province)

Country

Postal (Zip) Code

Signature



Interview: Dr. Peter C. Hu

The Young Fellows Section arranges interviews between Young Fellows and more senior Fellows. Young Fellows can obtain scientific and career advice from a senior member who may offer valuable guidance. This interview of **Peter C. Hu, Ph.D., FACSc.** was conducted by **Jessica Claus, D.O.**, Chair of the Young Fellows Section Oversight Committee.

Editor's Note: **Dr. Hu** served the Association as Vice President in 2014 and President in 2015. He received the **Young Clinical Scientist Award** in 2011 and the **Clinical Scientist of the Year Award** in 2018.

Jessica Claus: Please tell me a little bit about yourself. Where did you grow up? Where did you go to school?

Peter Hu: I was born in Taipei, Taiwan, and immigrated with my parents and younger brother to the United States in the late 1970s. Like many Asian immigrant families, we landed in San Francisco, CA. We made our way up north and eventually settled in a tiny town called Soldotna, Alaska. There, I spent my adolescent years. I believe we were the second Chinese family in that town. Growing up, we were quite isolated from the rest of the world in many ways.

Claus: How did you develop an interest in science and medicine?

Hu: Freshman year biology class in high school. The teacher was an avid insect collector and proudly displayed his collection in the classroom. I clearly remember it was a large multi-drawer display stand with rows of insects. He taught us how to make insect kill jars and if we collected certain insects in his collection, depending on rarity, would receive bonus points towards our final course grade and if we found an insect that wasn't in his collection where he can properly prep and add to his collection, we would receive enough points to bump up to the next highest final grade. I spent the next two weeks and actually found an insect that wasn't in his collection. For the rest of the semester, learning biology became fun for me because I didn't have to worry about the grades.

I went to Purdue University for my undergraduate studies as a Dean's Freshman Honor Scholar. This was a competitive award because it allowed me to choose a faculty member to conduct research as a freshman and it also came with some spending money which I desperately needed. I chose to study under a cognitive social psychologist, **Dr. Eliot Smith**, because at the time he was conducting stereotyping experiments. My original intent was to major in aerospace engineering, which Purdue was known for, producing the greatest number of astronauts including Neil Armstrong. My uncle was a senior aerospace engineer for one of the big aerospace companies at the time and I wanted to be like him. However, within a few weeks at Purdue, I knew that wasn't for me, so I immediately switched to psychology and graduated with a degree in psychology in 1991. During those years, I also took many biology and chemistry classes because I remembered memorization came easier for me and perhaps I could do something with it down the road, since undergraduate psychology degrees had somewhat limited options afterwards.



Dr. Peter Hu

Claus: Tell me about your career progression. Did your career progression exceed your expectations?

Hu: While at Purdue, I married my incredible wife, Cynthia, and we had our first child in 1992. In 1993, I went back to graduate school. After receiving my MS degree in microbiology from Lamar University in Beaumont, TX in 1995, I was at a crossroad of not knowing what I wanted or could do. Now married and with a young son, I felt the weight of responsibility and needed a job that could support a family, but the jobs available at the time utilizing my degrees would still put us barely above the poverty line. It was then I had a conversation with one of my thesis committee members, **Dr. Madelyn Hunt**, that would change my course forever. She introduced me to laboratory medicine and how I could leverage my microbiology degree and search for medical technology positions and other clinical positions that could pay twice as much as research. I immediately went through 2 back-to-back clinical technology programs - one in medical technology, then in cytogenetics —and landed a clinical

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Dr. Hu Interview continued

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bench position in the cytogenetics laboratory at MD Anderson Cancer Center in 1996.

For the next five years, I worked as a clinical cytogeneticist, but unbeknownst to me. I had accumulated a unique combination of degrees and certifications such that I was on a very short list of candidates for a teaching position in the School of Health Professions. There was an education coordinator position for two programs (medical technology and cytogenetics) and the candidate must be clinically certified in both areas holding a minimum of a master's degree with at least three years of working experience. I applied and subsequently got the position. Within two years, I became faculty as Instructor then Assistant Professor. However, the Dean made it clear that if I wanted to advance in rank I had to go back to school and obtain my terminal degree.

Again, I was at a crossroad because I was still married to my beautiful wife, but we now had two sons. I knew I wanted to get a Ph.D. because I wanted to conduct basic research, so I found a program through Trident University International that allowed me to conduct my dissertation research at MD Anderson under the supervision of a faculty member from the graduate school of biomedical sciences. I graduated with a Ph.D. in healthcare administration, but my dissertation was in molecular genetics from **Dr. Michael Siciliano's** laboratory in 2008. I guess you can say it was the best of both worlds. From there, I rose through the ranks to Associate Professor and eventually Professor (with tenure), and have been renewed since. Administratively, in 2004, I started my own program in molecular genetic technology, then added a graduate program in diagnostic genetics in 2013. I served as interim Dean for the school from 2018-2022 and now am Associate Dean of Research and Strategic Initiatives.

Claus: How did mentorship influence your professional career? How did you get involved with the Association?

Hu: Mentoring is such a critical component of anyone's professional journey. I've been blessed with key mentors throughout my life that guided me along the way. But for me, they were much more than that. At first, they started out as advisors by telling me what to do, then they became mentors by showing me how to do it, then they became my champions by having me watching them how to do it and setting it up for me and watching me doing it. This was what passed down to me and I have been doing the same for others ever since. One of those mentors, **Dr. Armand Glassman**, introduced me to the Association in 2009. He was my medical director back when I was a student in the technology programs at MD Anderson and later my division head, then department head. Throughout my career, he has always provided insight, encouragement, and constructive feedback.

Claus: What unexpected turns did you have in your career?

Hu: There were two very distinct moments I remember. The first is when the Dean asked if I wanted to start my

own program in molecular diagnostics in 2003, and that if I took up the challenge, I would be on my own from the ground up, but he would support me however he could. I did have support from the other program directors, but they were more on the consultant's side. The second moment was when a phone call came one Monday afternoon asking if I could serve as one of the interim Deans immediately. I accepted both challenges, so I guess I like taking risks.

Claus: How has ACS helped you in your career?

Hu: In so many ways. To really get the full breadth and depth of experiences from this Association, I recommend going through everything the Association has to offer. The genuine people I have met over the years have helped shape who I am today. I've presented during conferences, chaired sessions, served on the Executive Committee as president-elect, president, and past president, hosted a meeting, and serving on the journal review board. These opportunities are always there, you just need to accept them when asked. One of my proudest accomplishments in this association was introducing the "FACSc" designation on their signatures. Today, I see so many fellows using that designation including myself.

Claus: Did you have any instances where mentors influenced your professional career? How did they influence you?

Hu: Absolutely, on multiple occasions. When **Dr. Armand Glassman** introduced me to the association then shepherding me throughout the meeting introducing me to everyone, **Charlie Hawker, Bob Hunter, Bob Brown, Nina Tatevian, Roland Valdes**, and the list was long. These individuals gave me the opportunities to leverage this association to build my portfolio. They were the titans in their fields and yet they had the kindness and generosity to include me and putting up with my cookie ideas. That's priceless. Over time, I am proud that I was able to replicate this model and reach out to those who came after me, **Keri Donaldson, Kyle Kurek, Josh Bornhorst**, etc., and established new networks and friendships.

Claus: Describe the importance for faculty to be involved in national/international organizations and to have administrative responsibilities outside of their current institutions.

Hu: Being part of a professional organization allows you to expand your portfolio in many ways. I don't mean just becoming a member, but rather by serving on committees or in other capacities. Serving is different than attending because you get a chance to see how the sausage is made. Once you've seen it and experienced it, you can make meaningful contributions and changes. And along the way, you'll make so many new connections that directly or indirectly will aid in your career progression. The opportunities are always there, you just need the courage to ask for it.

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Dr. Hu interview continued

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Claus: How did you develop your network of colleagues over the years? How critical has this been towards success in your career?

Hu: Networking is key to any successful career. The advancement in technology has made it so much easier now to the point if you're not taking advantage of it, you almost can't progress.

Claus: What advice would you give to someone starting out in their career in clinical chemistry/laboratory medicine? What advice would you give someone at the Associate Professor level in their career?

Hu: I am not sure if I am qualified to give advice, but based on my recipe, which has worked quite well, is that the basic tenure and promotion model is true everywhere, i.e.,

- at the assistant professor level—local recognition within your state
- associate professor—national recognition, and
- professor—international recognition.

Young faculty:

1. Don't say no when approached. Things may seem daunting at first, it's only a natural reaction to the unknown or defense mechanism. But help is always available, you just need to be resourceful. However, the twist is, once you accept, you better do a good job of it. Eyes are always watching whether you know it or not. Each success will lead to better opportunities and bigger successes.
2. If you do fail, own up to it with humility and humbleness. Learn from it. Opportunities don't usually dry up, they keep coming.
3. Start taking leadership classes, i.e. leading self, others, teams, leaders. Emotional intelligence classes. These classes will help you tremendously.

Associate Professor:

1. Continue to take leadership classes.
2. If possible, start taking coaching classes.
3. Begin mentoring younger faculty.
4. Serve in leadership roles on institutional and professional committees.

In general, when you are young and are trying to reach to the top, you are more aggressive, competitive, and continuously acquiring new laurels to promote yourself. The hard thing to do is once you're up there, you'll need to make a mindset switch by promoting others to promote yourself. You've already made it, so pull everyone else up so that their success is your success. Become a servant leader.



The Young Fellows Section

Join the Young Fellows Section for a Career Inspiring Journey!

Our Young Fellows Section opens doors that will propel you forward in your professional life by providing networking opportunities and sharing knowledge and expertise with other professionals.

Being a young professional, the Association of Clinical Scientists not only allowed me to present my work through both poster and platform presentations, but also cultivated an intellectually stimulating and supportive environment by providing mentorship within the organization.

The Association also presents awards to acknowledge individuals and exceptional achievements. We invite young fellows to consider submitting case reports, review articles, or original research manuscripts for potential publication in the *Annals of Clinical and Laboratory Science*, the official journal affiliated with ACS. Detailed author instructions can be accessed: <https://www.clinicalscience.org>

If you're interested in participating in our upcoming annual meeting in Jacksonville, Florida, we strongly encourage you to consider submitting your abstracts. Additionally, we have planned a social event during the meeting to provide young talents with an opportunity to meet people from the Association and get involved with our work. Please note that the deadline for submitting abstracts is January 26, 2024.

If you're keen on becoming part of our Association, seeking mentorship, or joining our upcoming meeting, please don't hesitate to reach out to me via email. We look forward to hearing from you and having you on board!

Sincerely,

Jessica Claus, M.D.

Chair, Young Fellows Section Oversight Committee
PGY-3 Resident, Anatomic and Pathology Residency
Warren Alpert Medical School of Brown University

E-Mail: jessica_claus1@brown.edu



Dr. Jessica Claus



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Newsletter Trivia Question

Edited by Stephen M. Roper, Ph.D., FACSc

The first person to email the correct answer will have their name mentioned in the following newsletter and the satisfaction of knowing they won. Please respond to, or if you *have a trivia question you would like to submit*, please email to Stephen M. Roper at: smroper@wustl.edu.

PREVIOUS QUESTION

(submitted by Dr. Stephen Roper)

S-adenosylmethionine (SAM) is a ubiquitous methyl-group donor utilized in numerous biological reactions. SAM is generated in the transmethylation pathway; a series of reactions that convert methionine to homocysteine. Homocysteine, in turn, can be shunted down the transulfuration pathway (ultimately generating Cysteine or sulfate) or it can be remethylated back to methionine. Name the two vitamin co-factors involved in the remethylation of homocysteine to methionine?

ANSWER

No one submitted an answer for the previous trivia question.

The answer is:

Vitamins B12 and B6.

CURRENT QUESTION

(submitted by Dr. Stephen Roper)

Biotin is a water-soluble vitamin that is an essential cofactor for carboxylases. Defects in the metabolic pathway of biotin can result in a variety of manifestations secondary to decreased activity of these enzymes. Name the 4 carboxylases that require biotin as a cofactor.

ANSWER

The answer will appear in the next *Clinical Science Trumpet*. The person submitting the first correct answer will have a chance to write the trivia question for the subsequent newsletter.

Submit your answer by email to
Stephen M. Roper, Ph.D., FACSc, at:
smroper@wustl.edu.

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Clinical Science Trumpet

Newsletter of the Association of Clinical Scientists

The Clinical Science Trumpet Newsletter is the official newsletter of the Association of Clinical Scientists and is published three times per year. Back issues may be viewed at: <http://clinicalscience.org/news.html>.

Publisher: Association of Clinical Scientists
Interim Editor: Charles D. Hawker, PhD, MBA, FACSc
Graphic Editor: Michael Hawker, March, MS, AIA, ACA (Adobe Certified)

Announcements, commentaries, and news/photos of members are welcome. Please send to the Editor at: charlie@charlesdhawker.com.