



Clinical Science Trumpet

Newsletter of the Association of Clinical Scientists

Kamisha L. Johnson-Davis, PhD, DABCC (CC, TC), FACB, FACSc, Editor

Vol 38, No 2—April 2018

Final Program for the Association's Annual Meeting: Houston, Texas

May 16-19, 2018

Houston Marriott Medical Center/
Museum District



The MD Anderson Cancer Center, Houston, Texas

The 138th Meeting of the Association of Clinical Scientists will be held in Houston, Texas, on May 16th through 19th, 2018. It is being hosted by the Program of Diagnostic Genetics, The University of Texas MD Anderson Cancer Center, School of Health Professions. The meeting theme will be "Genomic Medicine." The Program Committee Co-Chairpersons, **Awdhesh Kalia, PhD** and **Peter Hu, PhD**, along with Program Committee members **Robert Hunter, MD, PhD**, **John Hicks, MD, DDS, PhD**, and **Roger Bertholf, PhD** cordially invite you to plan to attend another outstanding Association meeting.

The highlights feature two distinguished "keynote" lectures plus a distinguished banquet speaker, a Friday half day session at the MD Anderson Cancer Center, including tours of various anatomic and clinical pathology laboratories and School of Health Professions teaching laboratories, and a special optional bus tour on Friday afternoon for participants and spouses to visit the NASA Space Center Houston, which will include special tours of the Mars Control Center and the NASA Buoyancy Pool. NASA has restricted attendance in these special areas. See the ACS website for details.

TWO KEYNOTE SPEAKERS

The Abraham J. Gitlitz Memorial Lecture will be presented by **Andy Futreal, PhD**, Chair and Professor of the Department of Genomic Medicine, and the Robert A. Welch Distinguished University Chair for the University of Texas MD Anderson Cancer Center. Dr. Futreal will present *Cancer Heterogeneity: Challenges and Opportunities for Clinical Impact*.

The Claude P. Brown Memorial Lecture will be presented by **Stanley R. Hamilton, MD, FCAP, AGAF**, a Professor and the Head of Pathology and Laboratory Medicine at The University of Texas MD Anderson Cancer Center. His talk is entitled *The Road to Precision Oncology: Are We There Yet?*

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NASA Space Center Houston



- Page 2 — Hotel Information
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Hyperlinks

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Also, click any green text, or text adjacent a green arrow, as shown above to jump to more information.

2018 in Houston...

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FRIDAY RECEPTION AND BANQUET

The Association's annual reception and banquet will be held on Friday evening and will include a presentation of the Association's annual awards, including the Clinical Scientist of the Year (Sunderman Award), the F.W. Sunderman Jr. Diploma of Honor, and the Young Clinical Scientist award.

The banquet speaker will be **C. Thomas Caskey, MD, FACP, FACME, FRSC**, Professor in the Department of Molecular & Human Genetics–Baylor College of Medicine and the Director of Precision Medicine for the Young Presidents Organization. He is the past CEO of Brown Foundation Institute of Molecular Medicine at UTHSC–Houston, past senior Vice President of Human Genetics and Vaccines Discovery at Merck Research Laboratories, and past president of Merck Genome Institute. His talk is entitled *Precision Medicine Reduces Genetics Disease Risk*.

REGISTRATION NOW OPEN

Registration is now open on the **Association's website: www.clinicalscience.org**. Note that the main registration fees have been reduced.

THE HOTEL

The hotel for the Association's 138th Meeting is the **Houston Marriott Medical Center**, 6580 Fannin Street, (Driveway Entrance on 1730 Dryden Road), Houston, TX, 77030. Enjoy thoughtful services and upscale amenities at Marriott Houston Medical Center, and situated on the MetroRail across the street from the largest medical center in the world. Hunger may be appeased with regionally-inspired cuisine paired with premium libations at the on-site restaurant, Driscoll's. Retreat back to ultimate relaxation in newly remodeled guest rooms or the concierge lounge. During free time, discover attractions such as the Museum of Natural Science, Houston Zoo, Hermann Park and Rice University, all less than two miles away. The hotel boasts five stylish event rooms with nearly 9,000 sq. ft. of combined space.

The Association's contracted room rates for the 138th Meeting are \$139.00 Standard Guest Room with 17% applicable state and local taxes. The hotel's phone number is (713) 796-0080 and the website URL is <http://www.marriott.com/hotels/travel/houmc-houston-marriott-medical-center/>. Be sure to mention the Association of Clinical Scientists meeting when making reservations to get the discounted rates.

Valet Parking fee: \$28 USD daily.

Self Parking is available in the Scurlock Towers Garage; Entrance on 6535 Main Street. Fee: \$13 USD daily, no in/out privileges.

TRANSPORTATION

Houston is served by two major airports:

William P. Hobby Airport – HOU is 13.4 miles NW

Hotel does not provide shuttle service.

- Estimated taxi fare: \$40 US (one way).

George Bush Intercontinental Airport – IAH is 24 miles SW

Airport Phone: +1-281-230-3000

Hotel does not provide a shuttle service.

- Estimated taxi fare: \$65 US (one way).

For alternate transportation, both **HOU** and **IAH** are serviced by

SuperShuttle Service (www.supershuttle.com)

fee: \$25 US (one way), reservation required.



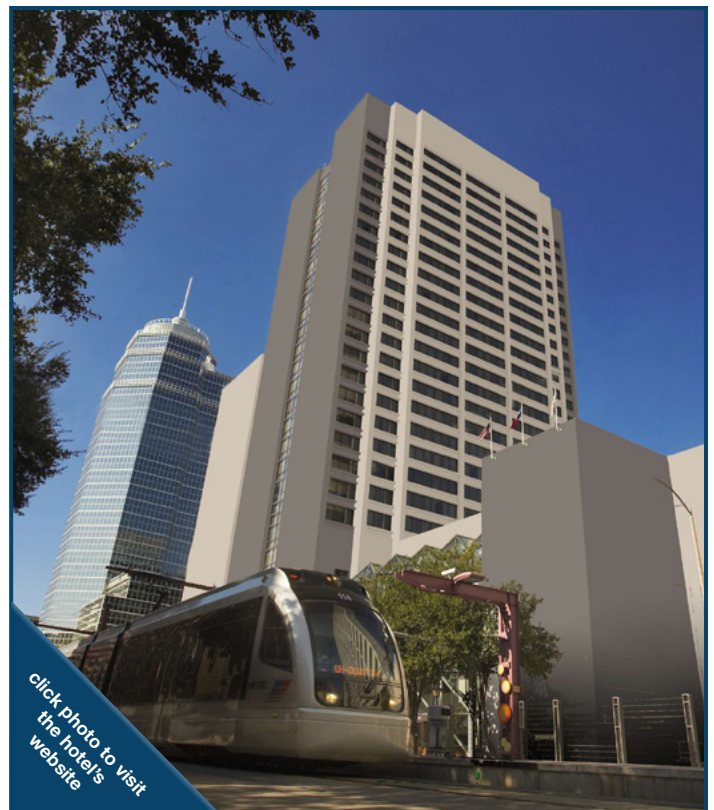
Andy Futreal, Ph.D.

Stanley R. Hamilton, M.D.

C. Thomas Caskey, M.D.



Grand Ballroom set up for Conference speakers and attendees



Houston Marriott Medical Center, Houston, Texas

click photo to visit the hotel's website

Association of Clinical Scientists 2018 Annual Meeting Final Program*

138th Meeting of the Association of Clinical Scientists, Houston, Texas, May 16-19, 2018

Theme: "Genomic Medicine"

Headquarters: Medical Center Marriott, Houston, Texas

Host: Department of Pathology, University of Alabama at Birmingham

CME Sponsor: American Association of Clinical Chemistry

program subject to
change; exact schedule in
Conference Program

Education Accreditation Statement

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of American Association of Clinical Chemistry (AACC) and Association of Clinical Scientists (ACS). The AACC is accredited by the ACCME to provide continuing medical education for physicians.

Credit Designation Statement

details available at the Annual Meeting

For PDF users, click the **green bold-face text** of a presenter's name to link to additional information.

Wednesday, May 16, 2018

2:30 – 5:30 p.m. Executive Committee meeting

Conf. Room 5

2:30 – 5:30 p.m. Registration

Salons A-B Foyer

Thursday, May 17, 2018

7:00 a.m. – 5:00 p.m. Registration

Salons A-B Foyer

7:00 – 8:00 a.m. Membership and Mentoring Committee breakfast

Conf. Room 4

7:00 – 8:00 a.m. Continental Breakfast

Salons A-D Foyer

8:00 – 8:15 a.m. Opening Remarks:

Salons A-D

Robert Hardy, President, ACS
Peter Hu and **Awdhesh Kalia**, Program Committee Co-chairs

8:15 – 9:00 a.m. **Abraham J. Gitlitz Memorial Lecture:**

Salons A-D

Andy Futreal, University of Texas MD Anderson Cancer Center:
Cancer heterogeneity: challenges and opportunities for clinical impact

Scientific Session I: Genomic Medicine (Oncology)

Salons A-D

Moderators:
Keri Donaldson/Kyle Kurek

9:00 – 9:20 a.m. **Karina Eterovic**, University of Texas MD Anderson Cancer Center:
Genomic profiling of solid tumors and cell free DNA: research and clinical aspects

9:20 – 9:40 a.m. **Marco Leung**, University of Chicago:
Clinical genetics testing reveals DDX41 as the most common gene predisposed to hereditary myeloid malignancies

9:40 – 10:00 a.m. **Courtney Dinardo**, University of Texas MD Anderson Cancer Center:
Awareness and identification of inherited predispositions to hematologic malignancies

9:40 – 10:00 a.m. **Morning Break**

Salons E-G

Scientific Session II: Microbiome in Health and Disease

Salons A-D

Moderators:
Irene Newsham/Casey Schroeder

10:30 – 11:00 a.m. **Ruth Ann Luna**, Texas Children's Hospital/Baylor College of Medicine:
Gut Feeling: the clinical utility of GI microbiome characterization

11:00 – 11:30 a.m. **Jessica Galloway-Peña**, University of Texas MD Anderson Cancer Center:
Clinical implications of the microbiome in the oncology patients

11:30 – 12:00 p.m. **Sridevi Devaraj**, Texas Children's Hospital/Baylor College of Medicine:
Obesity, metabolic syndrome and the microbiome—a gut feeling

12:00 – 1:30 p.m. **Lunch Break (lunch provided)**

Salons A-D

Samuel Shelburne, Texas Children's Hospital/Baylor College of Medicine:
Insights into infectious disease generated by genomic approaches: lessons from the front lines

Scientific Session III: Genomic and Evidenced-Based Medicine

Salons A-D

Moderators:
Rob Hardy/Karina Eterovic

1:30 – 1:45 p.m. **Jacquelyn Reuther**, Texas Children's Hospital/Baylor College of Medicine:
Clinical implication of targeted RNA sequencing for detecting fusion in solid tumors

1:45 – 2:00 p.m. **Diana Morlote**, University of Alabama at Birmingham:
Molecular and cytogenetic characterization of therapy—related myeloid neoplasms: a tertiary center experience

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Scientific Section III continues:

Salons A-D

- 2:00 – 2:15 p.m. **Roland Valdes**, University of Louisville:
Polypharmacy: A healthcare problem with a genomic medicine solution
- 2:15 – 2:30 p.m. **Brette Hannigan**, University of Texas MD Anderson Cancer Center:
Clinical validation of droplet digital PCR to detect JAK2 p. V167F mutation
- 2:30 – 4:00 p.m. **Poster Session* and Afternoon Break**
Salons E-G
**for poster authors and descriptions, see list at the end of this schedule*

Scientific Session IV: Clinical Microbiology and Infectious Diseases

Salons A-D

Moderators:
Bob Hunter/Ruth Ann Luna

- 4:00 – 4:15 p.m. **Xiqi Li**, University of Texas MD Anderson Cancer Center:
Whole genome sequence based identification of an ST-5_sub-cluster of linezolid-resistant Staphylococcus epidermidis causing invasive disease in cancer patients
- 4:15 – 4:30 p.m. **Emily Welobob**, University of Texas MD Anderson Cancer Center:
Characterization of the healthy pediatric gut microbiome: reference ranges for microbial targets
- 4:30 – 4:45 p.m. **Robert Hunter**, University of Texas Health Science Center at Houston:
Tuberculosis is an obligate human parasite with multiple distinct stages in humans
- 4:45 – 5:00 p.m. **Ronald Carlton**, Boca Biolistics Reference Laboratory:
Dengue virus detection by triplex RT-PCR and 3 serologic tests (NS-1, IgM, IgG)
- 5:30 – 7:00 p.m. Opening Reception
Salons E-G Foyer
- 7:30 – 9:00 p.m. Musicale Rehearsal
Salons E-G
- 8:00 p.m. **Young Fellows Section** social event led by Josh Bornhorst. *Meet in hotel lobby.* (all meeting attendees age 45 or younger (and spouses) are invited to attend)

Friday, May 18, 2018

- 7:15 a.m. Depart for MD Anderson Cancer Center (5 minute walk)

For PDF users, click the **green bold-face text** of a presenter's name to link to additional information.

- 7:30 – 8:00 a.m. Continental Breakfast
Onstead Auditorium

Scientific Session V: Molecular Pediatric Oncology

Onstead Auditorium

Moderator:
John Hicks

- 8:00 – 8:45 a.m. **Lola Lopez-Terrada**, Texas Children's Hospital/Baylor College of Medicine:
Towards a biology-annotated pediatric liver tumors consensus classification
- 8:45 – 9:30 a.m. **Angshumoy Roy**, Texas Children's Hospital/Baylor College of Medicine:
Clinical genomics of childhood solid tumors: lessons learnt from N-of-1 studies
- 9:30 – 10:00 a.m. **Morning Break**—get ready for Tour
- 10:00 – 11:00 a.m. Tour of MD Anderson Cancer Center
- 11:00 – 11:10 a.m. Walk back to Marriott Hotel
- 11:30 a.m. Bus departs from hotel to NASA for special tour (Box lunches included)
- 12:15 p.m. Arrive at NASA
- 4:30 p.m. Depart NASA
- 5:15 p.m. Arrive at hotel
- 6:00 – 7:00 p.m. Cocktail Reception
Salons E-G Foyer
- 7:00 – 9:00 p.m. **Awards Banquet and Speaker** [requires Banquet Ticket]
Salons E-G
Thomas Caskey, Baylor College of Medicine:
Precision medicine reduces genetics disease risk

Saturday, May 19, 2018

- 7:30 – 8:00 a.m. Continental Breakfast
Salons A-D Foyer

Scientific Session VI: Hematological Malignancies

Salons A-D

Moderators:
Keyur Patel/Andy Nguyen

- 8:00 – 8:30 a.m. **Andy Nguyen**, University of Texas Health Science Center at Houston:
Deep learning application in pathology: Part I: predicting prognosis of Acute Myeloid Leukemia with cytogenetics, age, and mutations
Part II: automated lymphoma diagnosis using digital images

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Scientific Section VI continues:

Salons A-D

8:30 – 8:50 a.m. **Keyur Patel**, University of Texas MD Anderson Cancer Center:
Opportunities and challenges in diagnosing inherited hematologic cancers

8:50 – 9:10 a.m. **Sean Post**, University of Texas MD Anderson Cancer Center:
Unraveling the mechanism of a dual tumor suppressor and oncogene that drives hematologic malignancies

9:10 – 9:40 a.m. **Morning Break**

Salons A-D Foyer

9:40 – 10:20 a.m. **Claude P. Brown Memorial Lecture:**
Salons A-D **Stanley R. Hamilton**, University of Texas MD Anderson Cancer Center:
The road to precision oncology: are we there yet?

Scientific Session VII: Solid Tumors

Salons A-D

Moderators:
Mary Coolbaugh-Murphy/Roland Valdes

10:20 – 10:40 a.m. **Jonathan Hoyne**, Mayo Clinic:
Systematic literature review as the key to the practice of evidence-based medicine

10:40 – 11:00 a.m. **Pei Zhao**, University of Texas MD Anderson Cancer Center/Baylor College of Medicine:
Clinical utility of NGS in the understanding of bioenergetic changes in tumorigenesis

11:00 – 11:20 a.m. **Stephanie Zalles**, University of Texas MD Anderson Cancer Center:
Monitoring of the disease progression in stage IV colorectal cancer patients through cfDNA based molecular testing

11:20 – 11:40 a.m. **John Hicks**, Texas Children's Hospital:
Infantile spindle cell Rhabdomyosarcoma mimicking infantile fibrosarcoma: potential pitfall

11:40 a.m. – 12:00 p.m. **Devin Broadwater**, Brooke Army Medical Center:
Clinical, morphologic and phenotypic features of histiocytic sarcomas, a multi-institutional review

12:00 – 1:30 p.m. **Lunch Break and ACS Business Meeting**
(lunch provided)
Salons A-D *All attendees are invited to attend the ACS Business Meeting, although only Members may vote*

Scientific Session VIII and IX Split Concurrent Sessions each with "Clinical Pathology" and "Anatomic Pathology" tracks:

"Clinical Pathology" Track

Scientific Session VIII-A: Misc. Clinical Pathology Topics:

Salons A-D Moderators:
Nina Tatevian/Consolato Sergi

1:30 – 1:50 p.m. **Christina Koci**, University of Texas MD Anderson Cancer Center:
Salons A-D *Detection of KIT pD816V mutations by droplet PCR*

1:50 – 2:10 p.m. **Consolato Sergi**, University of Alberta:
Salons A-D *Hirschsprung's disease (Aganglioneosis) approaching the miRNA-based genomic medicine of the 21st century*

2:10 – 2:30 p.m. **Cheng Peng**, University of Texas MD Anderson Cancer Center:
Salons A-D *Pan-Cancer analysis of copy number evaluation using high-throughput single-cell DNA*

2:30 – 2:50 p.m. **Ashley Hayden**, University of Texas MD Anderson Cancer Center:
Salons A-D *The Role of CYP2D6 single nucleotide polymorphism (SNP) for the prediction and treatment of chemotherapy-induced peripheral neuropathy (CIPN)*

2:50 – 3:10 p.m. **Ruizhi Duan**, University of Texas MD Anderson Cancer Center:
Salons A-D *Cytomolecular and clinical characteristics of HNRNP K gene duplication in hematological neoplasms*

or "Anatomic Pathology" Track

Scientific Session IX-A: Anatomic Pathology, QA, and Diagnostic Errors:

Salon E Moderators:
Phil Foulis/Myra Wilkerson

1:30 – 1:50 p.m. **Joshua Bornhorst**, Mayo Clinic:
Salon E *Lowering quality control operations cost through quality control material waste reduction*

1:50 – 2:10 p.m. **George Chen**, The Chinese University of Hong Kong:
Salon E *Inhibition of IL-6 and p16 sensitizes hepatocellular carcinoma to sorafenib*

2:10 – 2:30 p.m. **David Saulino**, University of Texas Health Science Center at Houston:
Salon E *CRM1 expression in pancreatic adenocarcinoma correlates with surviving expression and the proliferative activity*

2:30 – 2:50 p.m. **Bedia Barkoh**, University of Texas MD Anderson Cancer Center:
Salon E *Simultaneous detection of PDGFRA and KIT mutations in GIST patients by NGS*

2:50 – 3:10 p.m. **Kyle Kurek**, University of Calgary:
Salon E *Systemic Kaposi Sarcoma in a pediatric renal transplant patient*

3:10 – 3:30 p.m. **Afternoon Break**

Salons A-D Foyer

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“Clinical Pathology” Track continued**Scientific Session VIII-A: Misc. Clinical Pathology Topics:**

Salons A-D Moderators:
Eric Rosenbaum/Robert Brown

3:30 – 3:50 p.m. **Vanya Jaitly**, The University of Texas Health Science Center McGovern Medical School:
Salons A-D
Morphoproteomics identifies crystal storing histiocytes as M2 polarized macrophages

3:50 – 4:10 p.m. **Jennifer O’Brien**, University of Maryland School of Medicine:
Salons A-D
HLA antibody scree using a C1q binding assay for platelet transfusion support

4:10 – 4:30 p.m. **Roseen Salman**, Baylor College of Medicine:
Salons A-D
Cell-based noninvasive prenatal testing enables highly sensitive genomic copy number analysis

4:30 – 4:50 p.m. **Wenxiao Jiang**, Icahn School of Medicine at Mount Sinai:
Salons A-D
Diagnostic value of PTEN in autism spectrum disorder and macrocephaly

or “Anatomic Pathology” Track continued**Scientific Session IX-B: Anatomic Pathology, QA, and Diagnostic Errors:**

Salon E Moderators:
Kyle Kurek/Roger Bertholf

3:30 – 3:45 p.m. **Philip Foulis**, James A. Haley Veteran’s Hospital:
Salon E
Urine cytology: standardization of processes with decreased diagnostic interpretative error

3:45–4:00 p.m. **Wenrui Ye**, University of Texas MD Anderson Cancer Center:
Salon E
Mutational profiling of centrifuged supernatant fluid from fine-needle aspiration of thyroid nodules

4:00–4:15 p.m. **Mehrdad Rajaei**, Baylor College of Medicine:
Salon E
Targeted mutagenesis induced by CRISPR-Cas9 in mouse tyrosinase gene

4:15–4:30 p.m. **Meenakshi Bedwai Bhattacharjee**, University of Texas Health Science Center at Houston:
Salon E
Rare/unusual pathologies in epilepsy surgical resections, and their implications for genetic disease identification in some cases

4:30–4:45 p.m. **Penn Muluhngwi**, University of Louisville:
Salon E
Circulating antibodies to R132H isocitrate dehydrogenase as a “Liquid Biopsy” biomarker of gliomas

4:45–5:00 p.m. **John Hicks**, Texas Children’s Hospital:
Salon E
Pediatric Nodular Fasciitis involving head and neck region with MYH9-USP6 rearrangement

Session Ends

5:00 – 7:00 p.m. Dinner on your own

7:00 – 9:00 p.m. **Salon F** Musicale (wine, beer, hors d’oeuvres at intermission)
Note: Musicale open to all attendees (no ticket required to attend)

**Posters
(Thursday Set up 7:30-8:00 am, and take down by 5:30 pm)****Salons E-G**

- P1** **Brette Hannigan et. al.**, University of Texas MD Anderson Cancer Center:
Mutational profiling of the centrifuged supernatant fluid from fine needle aspiration of lung carcinomas
- P2** **Helen Mata et. al.**, University of Texas MD Anderson Cancer Center/Texas Children’s Hospital:
Genomic profile based prognostic markers for Wilms tumor
- P3** **Robert Brown et. al.**, University of Texas Health Science Center/St. Petersburg State Pediatric Medical University:
Morphoproteomics identifies the foamy alveolar macrophage as an M2 phenotype with PD-L1 expression in Mycobacterium tuberculosis: implications for host immune surveillance
- P4** **Shima Mousavi et. al.**, Baylor College of Medicine:
Improving accuracy of serrated colon polyp designation
- P5** **Marjorie David et. al.**, Baylor College of Medicine/Texas Children’s Hospital:
Atypical small cell carcinoma of the ovary, hypercalcemic-type diagnosed by multimodal molecular analysis
- P6** **Carissa Wachtler et. al.**, Access DX Reference Laboratory:
Evaluation of DNA extraction methods using throughput automation for pharmacogenetics testing
- P7** **Madison Doty et. al.**, MD Anderson Cancer Center:
Myeloid neoplasms with t(3;8)(q26;q24) chromosomal rearrangement
- P8** **Jayson Pagaduan et. al.**, Baylor College of Medicine/Texas Children’s Hospital:
Validation of the Procalcitonin assay on Abbot architect i1000
- P9** **Annie Koenig et. al.**, University of Texas MD Anderson Cancer Center:
Evaluation of bacterial genotyping methods for characterization of a hospital outbreak caused by invasive Streptococcus dysgalactiae subsp. Equismilis
- P10** **David Saulino et. al.**, University of Texas Health Science Center at Houston McGovern Medical School:
Effect of patient gender and ethnicity on eosinophil count in colorectal biopsies

Posters continued on page 7

Posters (continued from page 6)

Salons E-G

- P11** **Manju Ambelil et. al.**, University of Texas Health Science Center at Houston McGovern Medical School:
Frequency and clinical significance of equivocal CMV immunohistochemical staining in colorectal biopsies
- P12** **Suhair Al Salihi et. al.**, University of Texas Health Science Center at Houston McGovern Medical School:
Pancreatic acinar metaplasia in distal esophageal biopsies is associated with PPI and NSAID use
- P13** **Lee Springer et. al.**, The Bellevue Hospital:
Utility and performance of point-of-care rapid drug screen
- P14** **Parnian Ahmadi Moghaddam et. al.**, University of Texas Health Science Center at Houston McGovern Medical School:
M2 polarized macrophages in HIV+ patients express cyclooxygenase (COX)-2: pathogenesis and therapeutic implications
- P15** **Charlotte Myers et. al.**, Houston Methodist Hospital/Baylor College of Medicine/University of Texas Health Science Center at Houston McGovern Medical School:
Unique constellation of placental findings associated with protein S deficiency
- P16** **Mahesheema Ali et. al.**, Baylor College of Medicine/Texas Children's Hospital:
Vitamin D laboratory test utilization in a pediatric hospital
- P17** **Alex Tatevian**, Foundation for Research in Acupuncture & Integrative Medicine (FRAIM):
Instrumental modalities for utilization of "biologically active points"
- P18** **Jessica Tomsula et. al.**, Houston Methodist Hospital/Baylor College of Medicine/University of Texas Health Science Center at Houston McGovern Medical School:
Placental involvement by acute promyelocytic leukemia during initial presentation of the disease
- P19** **Daphne Massey et. al.**, University of Texas Health Science Center at Houston McGovern Medical School:
Fulminant hepatic failure in a child: is influenza A (H1N1) virus hepatotropic?
- P20** **Jincy Veliyathu et. al.**, University of Texas MD Anderson Cancer Center:
Detection of EGFR sensitizing mutations in circulating cell-free DNA by ddPCR
- P21** **Elizabeth Staley et. al.**, University of Alabama at Birmingham/The University of Oklahoma Health Science Center:
Paraneoplastic-antibody testing, patterns, positivity, and follow-up. A one year single center experience

Posters (continued)

Salons E-G

- P22** **Joseph Drwiega et. al.**, University of Alabama at Birmingham:
Formalin versus Bouin solution for testicular biopsies: which is the better fixative?
- P23** **Alexander Feldman et. al.**, University of Alabama at Birmingham:
Primary diffuse leptomeningeal gliomatosis: a mimicker of tuberculous meningitis
- P24** **Stephanie Zalles et. al.**, University of Texas MD Anderson Cancer Center:
Clinical validation of droplet digital PCR to detect mutations in codons 12, 13, 61, in KRAS and NRAS
- P25** **Liyun Cao et. al.**, University of Alabama at Birmingham:
Comparison of measured and calculated low-density lipoprotein cholesterol at different triglyceride levels
- P26** **Robert Brown et. al.**, University of Texas Health Science Center at Houston McGovern Medical School:
EZH2, Sirt 1, c-Myc, CXCR4 pathways may block differentiation in sinonasal undifferentiated carcinoma



NASA buoyancy pool



The MD Anderson Cancer Center

The Young Fellows Section

JANUARY 2018 YFS REPORT

The Young Fellows Section allows pathologists and scientists to connect with established leaders in clinical laboratory science, as well as to make positive impacts to ACS. Members have an opportunity to learn the ins and outs of an established organization and also to voice suggestions and new ideas. Our goal is to help expand the association by recruiting new members who have an interest in lab medicine and wish to connect with like-minded colleagues.



Tyler Yin

Several new and ongoing projects have been created to meet these goals. First, we have been awarded a Google Ad Grants account with a monthly stipend of \$10,000/month. This enables us to use Adwords for our website, annual meetings, our journal, and future activities or contents. Second, we have created a YouTube account as a way to showcase our annual meeting in Houston. In the future, we hope to upload videos of presentations that have great scientific merit or informative tutorials that are useful to students. Third, we are planning to update our website with new content that can aid both nascent and established professionals alike.

If you are interested in getting involved in any of these endeavors, please email Tyler Yin (d0yin001@louisville.edu) for more information.

YFS SOCIAL EVENT AT THE ANNUAL MEETING

The Young Fellows Section will hold its annual social event during the Annual Meeting in Houston. This event is open to all meeting attendees, ages 45 or younger, and spouses. It is a great opportunity to meet your peers and learn about the many exciting ways you can participate in Association activities, publish in our journal, and serve on committees or in elected positions. Several senior members will be present to answer questions or offer suggestions.

Young Fellows Section Social Event, Thursday, May 17, 8:00 pm for all meeting attendees, age 45 or younger, and spouses.

Meet Josh Bornhorst in the hotel lobby for a short walk to Third Coast.

The Association will pay for hors d'oeuvres and the first round of libations.

I am sorry that I cannot attend, but please email me (d0yin001@louisville.edu) for more information about Young Fellows Section opportunities.

YOUNG FELLOWS SECTION CHAIR:

DeLu (Tyler) Lin, PhD, FACSc
Clinical Research Coordinator,
Department of Pathology and Laboratory Medicine
University of Louisville

email: d0yin001@louisville.edu

The Auxiliary

The **Auxiliary** of the Association of Clinical Scientists promotes and provides a forum of support, camaraderie and entertainment for Association members' family, friends, and guests in attendance at the annual meetings.

- Encourage Association members to include spouses and significant others when attending annual meetings.
- Generate interest in attracting new members and sustaining existing members by developing an all-around educational and friendly environment.
- Cultivate long-lasting relationships among Association and Auxiliary members that evolve over the years.

The following announcement is from Becky Hunter, Auxiliary President:

A warm welcome awaits you in Houston. Our plans include the Museum of Fine Arts (two new exhibits: *Michelangelo and the Vatican* and *Peacock in the Desert: The Royal Arts of Jodhpur, India*); behind the scenes tour of NASA; a visit to the botanic garden to explore their outdoor garden rooms; receptions and more. Our traditional banquet and musicale are also on the agenda. Most of all, we look forward to seeing all of you and sharing the fun of fellowship that is our cornerstone. See you soon and hugs in the meantime.

Details of the Auxiliary's events will be available at the meeting registration desk.

Becky Hunter



Museum of Fine Arts Houston



Houston Botanic Garden

Association of Clinical Scientists

Registration for 138th Meeting, Houston, TX, May 16–19, 2018

Note the reduced fees

ATTENDEE INFORMATION

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

	Unit Price	Number of Persons	Amount Charged
Regular Full Meeting Registration For all Fellows of the Association and non-members attending the full Meeting; includes one banquet ticket and continuing education credits, if desired.	\$475	_____	_____
Meeting Registration, Emeritus, Assoc. Fellows & Trainees For all Emeritus or Associate Fellows of the Association and all trainees, residents, and Fellows attending the full Meeting; includes one banquet ticket and CE credits, if desired.	\$200	_____	_____
Meeting Registration, Complimentary For all speakers only attending the meeting for the day of their lecture; excludes CE, banquet and luncheon tickets	\$0	_____	_____
Single Day Registration For either Thursday or Saturday; includes luncheon and continuing education credits if desired	\$200	_____	_____
Luncheon Seminar, Thursday, May 17 Complimentary for all attendees with Regular Full Meeting Registration (please indicate attendance for headcount estimation)	\$0	_____	_____
Friday Afternoon NASA Tour, May 18 (see program) NOTE: this tour includes two special "back stage" events not open to the public. Provide a copy of your Driver's License or Passport to the ACS office no later than two weeks prior to the Conference. Price includes bus and box lunch.	\$50	_____	_____
Extra Banquet Tickets, Friday, May 18	\$95	_____	_____
Musicale, with Wine and Cheese Intermission Complimentary for all attendees (please indicate attendance for headcount estimation)	\$0	_____	_____
Include Renewal of Dues (Fellows)	\$225	_____	_____
Renewal of Dues (Assoc. Fellows)	\$50	_____	_____
Total Payment Enclosed		_____	_____

continues on page 10

Association of Clinical Scientists

Registration for 138th Meeting, Houston, TX, May 16–19, 2018

PAYMENT OPTIONS

Cancellation with full refund will be accepted until April 6, 2018.

1. Register securely on-line at <http://www.clinicalscience.org/annualmeeting.html#Registration>.
2. Complete and mail this form (copy/print both sides 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

Security code (CVV)

Expiration date (mo/yr)

Name on the card

Billing Address

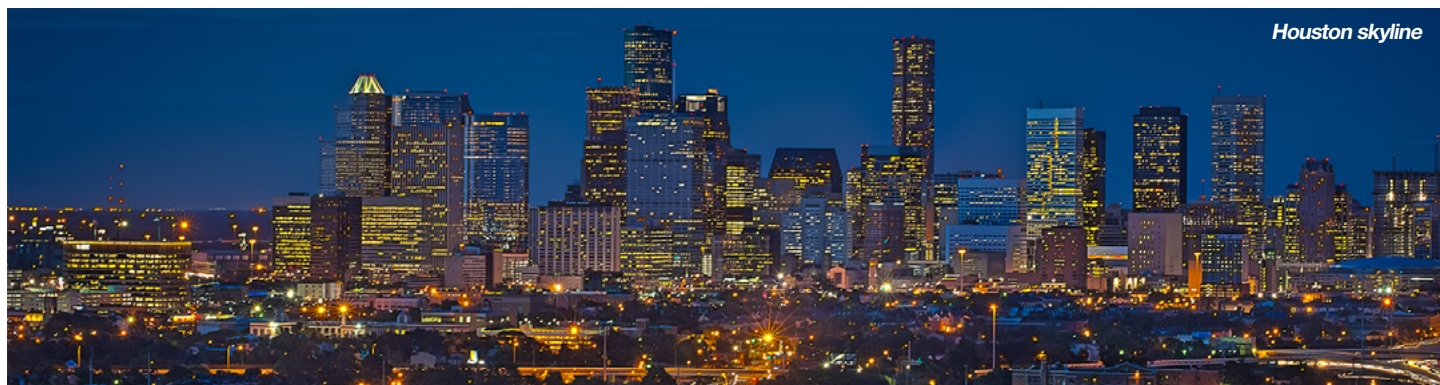
City

State (Province)

Country

Postal (Zip) Code

Signature



Houston skyline

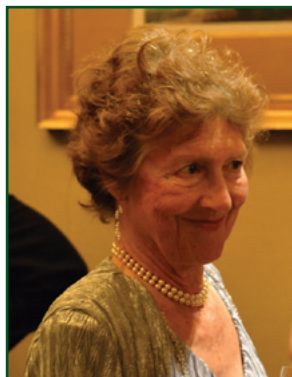
Recent Annual Meetings

Attendees:
do you have any fun
photos to share?
Please email to the Editor:
kamisha.davis@hsc.utah.edu

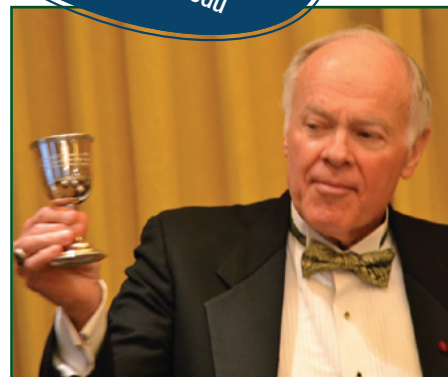
2015



Roger Bertholf (left) and Robert Hunter (right)



Becky Hunter



Charlie Hawker

2016



Josh Bornhorst (left) and Tyler Yin (right)



The Young Fellows Section dinner

2017



The Annual Musicale



Allen Bryan (left), Elizabeth Staley (center), Joseph Drwiega (center back), and Robert Hardy (right)

Interview: Dr. Charles Hawker

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. Below is an interview between Penn Muluhngwi, Ph.D. [Clinical Chemistry Fellow, Department of Pathology and Laboratory Medicine, University of Louisville, School of Medicine] and Charles (Charlie) Hawker, PhD.

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

Charles Hawker: I grew up in St. Louis, Missouri, the oldest of four children, and graduated from a public high school (Grover Cleveland) in January, 1958. In those days, the St. Louis schools had two graduating classes each year. I wanted to work until college started in September, but there was a national recession and jobs were scarce. After spending two weeks as a laborer at St. Louis Shipbuilding & Steel Company, I saw a newspaper ad for a technician position in an endocrine lab at Barnes Hospital. I interviewed, but they didn't want to train me for just the 6-7 months before I would leave for college, so I said I would work for free because I wanted to learn about the lab. They were willing and that was how I got started in clinical laboratory medicine. I learned how to do colorimetric tests such as for 17-ketosteroids, 17-hydroxycorticosteroids, and the isonicotinic acid hydrazide (INH) reaction for Δ^4 -3-ketosteroids on urine specimens from patients with endocrine diseases. It was great fun and a wonderful learning experience.

Following my freshman year at Illinois Wesleyan University (IWU), the Barnes lab hired me for the summer at a regular technician salary and gave me an interesting research project that led to my first publication in *Analytical Chemistry* in 1960. They had observed that the INH reaction gave a yellow color with hesperetin, a flavonoid compound they had isolated from human urine. In addition to developing a quantitative colorimetric method for measurement of flavonoid compounds using the INH reagent, this project led to a separation procedure for six different categories of flavonoids. Of course, in 1959, nothing was yet known about flavonoids as anti-oxidants and their possible value in human health. Much to my surprise this work was noted with two sentences in the Funk & Wagnalls Encyclopedia Yearbook for 1960 in the section on Chemistry and Chemistry Technologies.

After completing my BA in chemistry at IWU, I attended graduate school in biochemistry at the University of Wisconsin, where I earned an MS under Howard Rasmussen, MD, PhD. Howard was the first person to purify bovine parathyroid hormone (PTH) and was undoubtedly the most significant mentor in my career (see below). As my MS work was concluding, Howard accepted a position as chair of biochemistry at the University of Pennsylvania, so I moved to Philadelphia and completed my PhD in 1967 on the purification and isolation of porcine calcitonin.

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

Hawker: My father and grandfather were both physicians, so I initially thought I wanted to go into medicine. However, my father (an obstetrician) missed so many family dinners and other family events and was at the hospital so much, that I changed my mind and thought I would go into research instead and work toward a PhD. Of course, my high school counselor wasn't savvy enough to know that some MDs did research, and I didn't really find that out until I was in graduate school. Ending up with a career in laboratory medicine had as much to do with serendipity as anything else. The experience at Barnes Hospital was great, but laboratory medicine wasn't yet on my radar



Dr. Charles Hawker

as a career. Further, the chemistry department at Illinois Wesleyan was quite small – there were fewer than ten chemistry majors while I was there and only two faculty members. As naively as it sounds, I chose biochemistry for graduate school because I liked both chemistry and biology, but neither of them individually enough. Although I had not taken an undergraduate course in biochemistry, I intuitively thought it would be what I wanted.

Muluhngwi: Tell me about your career progression. What unexpected turns did you have in your career?

Hawker: After completing my PhD, I obtained an NIH postdoctoral fellowship at Penn with Howard Rasmussen to develop a radioimmunoassay (RIA) for calcitonin. This was only a few years after Berson & Yalow published the first RIA for insulin, followed by growth hormone, ACTH, and PTH. None had yet been developed for calcitonin, so I began by developing an RIA for PTH to learn the techniques so that I could work on calcitonin. It took four years to get a working assay for PTH; I never started calcitonin. My latter two years as a postdoc were with Robert Utiger, MD, an endocrinologist who had developed the first RIA for TSH before he

continues on page 13

Dr. Charles Hawker *continued from page 12*

came to Penn. His experience in RIA and his ability to procure patient specimens for assay validation got the PTH assay over the hump. Important to my subsequent career was that Howard Rasmussen gave me permission to take the reagents for the PTH assay with me.

My first position upon leaving Bob Utiger's lab was at a small endocrine RIA lab in West Los Angeles. It turned out to be a dishonest lab that I caught "sink testing" and reported to the CDC. There isn't room here for that story. From there I took a position with the clinical lab business (Laboratory Procedures) owned by the Upjohn Company in Kalamazoo, MI to head up an R&D laboratory developing new (mostly RIA) tests as well as to run the PTH assay in production. At the high point I had 15 people running 1000 PTH tests per week with a 6-day manual procedure. Amazing by today's standards! My R&D group developed quite a number of outstanding new RIA tests, including calcitonin (finally), several steroid hormones, gastrin, pepsinogen, somatomedin, and others. We also used these assays (mostly PTH) in many collaborative research projects with scientists all around the country, one of which led to the discovery of procalcitonin and its role in differential diagnosis of septic shock. That 1983 paper preceded Pub Med and computerized searches, so it was missed by patent agencies when Brahms patented the PCT assay for septic shock as well as by many people who have since published in that area.

In 1981, Upjohn sold their lab business to SmithKline and I moved to a large SK lab in St. Louis to manage SK's R&D. After a couple of years I became manager of client services which also included specimen processing, couriers, referral testing, and outpatient labs. While in that position I completed an executive MBA at Washington University in St. Louis. After four years I became technical director of the lab. It was at SK when I got started with automation. That was the first of the more than 25 SK labs in the country to get barcoding – a tremendous challenge that took a year to get working. After that we installed a conveyor system for specimen processing and a computerized post-analytical specimen storage system.

In 1991, I left SmithKline, frustrated by their bonus driven focus that was adversely affecting patient care in my opinion. ARUP Laboratories in Salt Lake City created a new position for me because of my automation experience, not as a laboratory scientist or manager. It became a wonderful relationship that lasted 26 years from which I just recently retired.

Muluhngwi: How has ACS helped you in your career?

Hawker: In 1974, Don Forman, then the President of ACS, invited me to lecture on PTH at a fall ACS meeting in Philadelphia. In those days, the Association had a fall meeting, attended by hundreds, on a specific theme with only invited presentations plus a spring meeting with submitted abstracts. Don introduced me to many of the members including the Sundermans and also invited me to join the Association which I did. This was even before I joined AACC. Subsequently, I was invited to speak at several more of the fall meetings. Don Forman invited me for lectures and to submit papers, and there were other publications, some in the Association's journal. I had an excellent relationship with Bill Sunderman, Sr., once even joining him for lunch at the Union League in Philadelphia.

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

Hawker: Many mentors influenced my career, beginning with T.E. Weichselbaum, MD, the director of the Barnes lab. While I was at IWU I had several graduate school offers and could not decide between Cal Berkeley and Wisconsin. Both had several recent Nobel laureates. Dr. Weichselbaum convinced me that I would learn far more in Madison. He said that everyone at Berkeley was trying to get a Nobel Prize and people wouldn't even talk to each other at lunch out of fear that their research ideas might be scooped. At Wisconsin, I was extremely fortunate to study under Howard Rasmussen, a true genius whose insights into calcium homeostasis were way ahead of others. Howard took me under his wing, and when I developed serious allergies to animal danders, he switched me from a project involving rats to one that was mostly chemistry. It became my MS thesis – the purification and characterization of a parathyroid polypeptide that stimulated glycolysis. Howard's guidance in a great many ways shaped my career and I learned immensely from him, including how to deliver a lecture. I've always said that I might have ended up analyzing selenium at some agricultural research station in Iowa, if he hadn't invited me to join his lab. My whole career really started with the PTH RIA thanks to Howard.

There have been many others, including Bob Utiger, Claude Arnaud, of Mayo PTH RIA fame, both Sundermans, and various managers and leaders at Upjohn, SmithKline, and ARUP. In turn, I have always thought it important that I mentor others when there has been the opportunity. I strongly encourage young clinical laboratory scientists to both seek good mentors and then to mentor others along the way.

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

Hawker: I think my network developed the same way as for most scientists – primarily through meetings and conferences. One conversation can lead to a lecture invitation, an invitation to another meeting, or an introduction to another scientist. These contacts lead to more contacts and a network grows from there. I believe that networking is very important to career development. However, networking also grows as one participates in professional societies and standards organizations and volunteers for leadership positions. I think it is important to give back to the profession through such endeavors.

Muluhngwi: What advice would you give to someone starting out in their career in clinical chemistry/laboratory medicine?

Hawker: First, the Association of Clinical Scientists is an excellent group with which to associate. I believe young scientists can better develop connections and their network through the Association than through larger organizations. Second, find excellent mentors to guide you as your career progresses, and, in turn, mentor younger colleagues. Don't be afraid to make mistakes. I made plenty in my career, including killing the guinea pig that made my best antiserum by overdosing him with PTH and putting him in anaphylactic shock. Submit abstracts and give presentations. Volunteer for committees and for other opportunities to become involved in professional and standards organizations.

Proposed Constitution and Bylaws Amendments

for vote at Business Meeting, May, 2018 by Charles D. Hawker, Executive Director

For the past year the Executive Committee has studied the issue of the Association's governance. There were several objectives guiding these discussions – (1) to improve the organization-specific knowledge and experience of the Association's officers before taking office, (2) to directly elect new Executive Committee members, (3) to increase the turnover of the Executive Committee members from the present limit of 1-2 positions per year, (4) to increase the involvement of younger members, (5) to change the total voting positions on the Executive Committee to an odd number, and (6) to delete some old language no longer relevant.

Background and Rationale

Historically, when the Association was led by Dr. F.W. Sunderman, Sr., the position of President was mostly “for show” and to pad each President's resume. Dr. Sunderman remained in control; Fellows were typically nominated for the position of Vice President at the Annual Meeting, taking that position immediately after being elected. Often, Vice Presidents had no prior leadership responsibilities in the Association; their year as Vice President constituted their entire “learning curve” about Association leadership before their year as President. This practice continued with Bill Sunderman, Jr. and was in place until his 2011 passing. Moreover, the Executive Committee retained the four immediate past presidents on the Executive Committee for 4-year terms, which provided considerable knowledge to the Executive Committee about the Association. After Bill Jr.'s passing, his “lifetime” appointment of Secretary-Treasurer was split into the two positions of Secretary and Treasurer, each with 3-year terms, via a Bylaws amendment. To not increase the size of the Executive Committee, the number of Past Presidents serving on the E.C. was reduced from four (with 4-year terms) to three (with 3-year terms).

This structure served the Association fairly well over the years. However, the Executive Committee felt that the Association would be a much stronger institution going forward if its structure emphasized greater experience for Fellows serving as President and recruitment of younger Fellows into leadership positions in lieu of retention of several past presidents on the Executive Committee. The current E.C. decided that creating an additional officer position of President Elect, in addition to the current Vice President and President, provided for an additional year of experience in Association leadership before assuming the mantle of President. There are several professional organizations already using this model, including USCAP, American Academy of Oral and Maxillofacial Pathology, and American Academy of Pediatric Dentistry. In the new proposal presented here, only the immediate past president would serve on the Executive Committee (one year), and two members of the Executive Committee would be Fellows elected to the E.C. for two year terms, one per year in an alternating fashion. In addition, in order to be nominated and elected as Vice President, President Elect, or President, a Fellow must have had at least one prior year of service on the E.C., either as an elected member or as Secretary or Treasurer.

In the present structure, a Fellow elected as Vice President serves on the E.C. for five years – one year each as Vice President and President and three years as Past President. In the proposed new structure, a Fellow would serve a minimum of five years, one year each as Vice President, President Elect, President, and Past President, plus the required one year minimum as an elected member of the E.C. or as Secretary or Treasurer. If the Secretary, Treasurer, or an elected member of the E.C. is nominated for the Vice President position before a current term of office has been completed, the Nominating Committee is required to nominate a replacement.

Current Relevant Sections of Constitution and Bylaws with Proposed Changes in Red

Constitution

Article VI: Officers and Standing Committees

Section 1. Officers: The Officers of the Association are the President, **President-Elect**, Vice-President, Secretary, and Treasurer. The terms of the President, **President-Elect**, and the Vice-President are one year; the terms of the Secretary and Treasurer are three years each. **The normal progression will be from Vice President to President-Elect to President. The immediate Past President also serves for one year. In order to be nominated for Vice President, a Fellow must have served on the Executive Committee for a minimum of one year, either as Secretary, Treasurer, or an elected Member of the Executive Committee.**

Section 2. Standing Committees: The **only** Standing Committees of the Association **is-are** the Executive Committee, **Awards Committee, Constitution and Bylaws Committee, Membership and Mentoring Committee, Nominating Committee, Publications Committee, and the Young Fellows Section Oversight Committee. The President may appoint other committees such as the Past Presidents Council, Athletics Committee, Historical Committee, and the Music and Arts Committee. The Program Committee for each annual meeting is selected by the Chairperson(s) for the meeting.**

Section 3. Executive Committee: In addition to the President, **President-Elect**, Vice-President, Secretary, **and** Treasurer, **and immediate Past President**, the Executive Committee consists of **two three-elected regular members and three appointedee-opted members. and may include an honorary member.** The regular members consist of Fellows, who each serve for a two**three**-year term, **and who have normally been the three most recent past presidents. The appointedee-opted members** consist of the Director of Scientific Sections, the Editor of the Annals of Clinical and Laboratory Science, and the Chair of the Young Fellows Section Oversight Committee. **The President may appoint one distinguished clinical scientist, who has been an active Fellow for at least twenty years, as an honorary member of the Executive Committee.** Each **appointedee-opted or honorary** member serves for a one-year term, but may be reappointed.

Article IX: Effective Date of Present Document

This revised Constitution becomes effective immediately after adoption at the annual business meeting on **19 May 2018**.

Bylaws

Article II: Election of Officers

Section 1. Elective Offices: At each annual meeting, the Association elects the President, **President-Elect, and** Vice-President, **and a Member of the Executive Committee for a two year term.** The Secretary and Treasurer are elected every three years, such elections being held in different years. Unexpected vacancies among these offices are filled *pro tempore* by presidential appointment until election at the next annual business meeting.

Article III: Duties of Officers

Section 1. President: The President presides at all meetings, appoints standing and special committees, serves as an ex-officio member of all committees, and performs all other

continues on page 15

duties inherent to this office. The President is a member of the Executive Committee and presides at its meetings.

Section 2. President-Elect: The President-Elect serves as an assistant to the President, and, in the absence or incapacity of the President, assumes the President's duties and responsibilities. The President-Elect serves as a member of the Executive Committee and as Chair of the Membership and Mentoring Committee.

Section 3. Vice-President: The Vice-President serves as an assistant to the President, and, in the absence or incapacity of both the President and President-Elect, assumes the President's duties and responsibilities. The Vice-President serves as a member of the Executive Committee, as a member of the Membership and Mentoring Committee, and as Chair of the Constitution and Bylaws Committee.

Section 4. Secretary: The Secretary performs all secretarial duties and keeps permanent records of all transactions of the Association. The Secretary is the custodian of the records of the meetings of all standing and special committees. If appropriate to the situation, the Secretary may designate an associate secretary to take the minutes of committee and business meetings. The Secretary serves as a member of the Executive Committee.

Section 5. Treasurer: The Treasurer is responsible for management of all funds and properties of the Association. At the annual business meeting, the Treasurer presents an annual financial report, audited by a certified public accountant. The Treasurer serves as a member of the Executive Committee.



Proposed Revised Constitution and Bylaws without Red Additions and Deletions

Constitution

Article VI: Officers and Standing Committees

Section 1. Officers: The Officers of the Association are the President, President-Elect, Vice-President, Secretary, and Treasurer. The terms of the President, President-Elect, and the Vice-President are one year; the terms of the Secretary and Treasurer are three years each. The normal progression will be from Vice President to President-Elect to President. The immediate Past President also serves for one year. In order to be nominated for Vice President, a Fellow must have served on the Executive Committee for a minimum of one year, either as Secretary, Treasurer, or an elected Member of the Executive Committee.

Section 2. Standing Committees: The only Standing Committees of the Association are the Executive Committee, Awards Committee, Constitution and Bylaws Committee, Membership and Mentoring Committee, Nominating Committee, Publications Committee, and the Young Fellows Section Oversight Committee. The President may appoint other committees such as the Past Presidents Council, Athletics Committee, Historical Committee, and the Music and Arts Committee. The Program Committee for each annual meeting is selected by the Chairperson(s) for the meeting.

Section 3. Executive Committee: In addition to the President, President-Elect, Vice-President, Secretary, and Treasurer, and immediate Past President, the Executive Committee consists of two elected Members and three appointed Members. . The elected Members consist of Fellows, who each serve for a two-year term. The appointed Members consist of the Director of Scientific Sections, the Editor of the Annals of Clinical and Laboratory Science, and the Chair of the Young Fellows Section Oversight Committee. Each appointed Member serves for a one-year term, but may be reappointed.

Article IX: Effective Date of Present Document

This revised Constitution becomes effective immediately after adoption at the annual business meeting on 19 May 2018.

Bylaws

Article II: Election of Officers

Section 1. Elective Offices: At each annual meeting, the Association elects the President, President-Elect, and Vice-President, and a Member of the Executive Committee for a two year term. The Secretary and Treasurer are elected every three years, such elections being held in different years. Unexpected vacancies among these offices are filled *pro tempore* by presidential appointment until election at the next annual business meeting.

Article III: Duties of Officers

Section 1. President: The President presides at all meetings, appoints standing and special committees, serves as an ex-officio member of all committees, and performs all other duties inherent to this office. The President is a member of the Executive Committee and presides at its meetings.

Section 2. President-Elect: The President-Elect serves as an assistant to the President, and, in the absence or incapacity of the President, assumes the President's duties and responsibilities. The President-Elect serves as a member of the Executive Committee and as Chair of the Membership and Mentoring Committee.

Section 3. Vice-President: The Vice-President serves as an assistant to the President, and, in the absence or incapacity of both the President and President-Elect, assumes the President's duties and responsibilities. The Vice-President serves as a member of the Executive Committee, as a member of the Membership and Mentoring Committee, and as Chair of the Constitution and Bylaws Committee.

Section 4. Secretary: The Secretary performs all secretarial duties and keeps permanent records of all transactions of the Association. The Secretary is the custodian of the records of the meetings of all standing and special committees. If appropriate to the situation, the Secretary may designate an associate secretary to take the minutes of committee and business meetings. The Secretary serves as a member of the Executive Committee.

Section 5. Treasurer: The Treasurer is responsible for management of all funds and properties of the Association. At the annual business meeting, the Treasurer presents an annual financial report, audited by a certified public accountant. The Treasurer serves as a member of the Executive Committee.



Arguments For and Against the Proposed Amendments

For

1. With the Sundermans no longer involved in Association leadership, the position of President now requires more experience in leading the organization. In the current Bylaws, an individual serves as President after only one year on the Executive Committee (as Vice President). In the proposed revision, an individual would serve as President after at least three years on the Executive Committee (minimum of one year as Secretary, Treasurer, or an elected member plus one year each as Vice President and President Elect).

2. In the current structure an individual serves as President in the second year of five on the Executive Committee, as three years will be as a past president. In the proposed new structure, of the minimum of five years on the Executive Committee, an individual's term as President is in the fourth year, giving that individual considerably more experience in Association leadership.

3. The current structure has three past presidents on the Executive Committee, each for a three year term. While the contributions of these individuals to the Association's success have been important and their wisdom and guidance of the Executive

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Committee is greatly appreciated, the proposed structure offers more opportunity for younger members to become involved in leadership by replacing two of the three past president positions with elected members to the Executive Committee.

4. In order for the Association to retain and benefit from the wisdom and experience of the past presidents, it is proposed that a Past Presidents Council be formed consisting of the current past president and the most immediate three past presidents. The Council would be chaired by the President who would hold meetings as frequently as required in order to discuss strategic and other matters of importance to the organization.

5. The proposed structure creates a logical progression and learning curve for the Association's leadership. For example, the Vice President serves as a member of the Membership & Mentoring Committee, then chairs that committee the following year as President-Elect. Also, by chairing the Constitution and Bylaws Committee, the Vice President will learn much about the organizational structure and requirements.

6. In the current structure, the annual turnover of the members of the Executive Committee is minimal – only 1 or 2 new members per year (Vice President plus either the Secretary or Treasurer in two of each three years) out of ten total positions on the E.C. With the proposed new structure, there will be one more new member of the Executive Committee elected each year in addition to the current state, bringing the annual turnover to 2 or 3 new members out of 11 total positions. This is a more ideal structure in that it will bring new ideas to the Executive Committee and move the organization forward.

Against

1. The current structure has worked well for over sixty years. Change is not needed.
2. Reducing the number of past presidents on the Executive Committee from three to one deprives the Executive Committee of valuable wisdom and counsel.
3. A larger Executive Committee (11 versus 10) will add expense to the budget for attendance at the winter Executive Committee meeting usually held in the host city for the Annual Meeting. ❖



2017 Meeting: Rob Hardy (left) and Phil Foulis (right)

President's Corner

Annual Meeting

Greetings,

I trust everyone has made their plans to attend the 2018 ACS annual meeting. If not, it is not too late to make plans to attend. It promises to be a highly educational meeting that is focused on Genomic Medicine, the Microbiome, and Molecular Pediatric Oncology. These are topics that are important, relevant, and evolving, and this meeting will keep us up to date. In addition, I urge those of you attending the meeting to also attend the ACS business meeting on Saturday as we will be asking the membership to approve important changes to the ACS Constitution and Bylaws. These proposed changes have been worked on diligently by the Executive Committee and the membership will get a chance to preview the proposed changes on the ACS website. They will be posted by April 15. Please review them and plan on attending the Annual Meeting so you can vote.



Robert Hardy

One of my favorite things about the ACS is that the Annual Meetings are the most enjoyable to attend. In addition to great science, they allow you to learn interesting features of the host city, see the facilities in other institutions, enjoy wonderful music, and socialize with your colleagues. This meeting will be a great example and will include a trip to the NASA Space Center, a tour of the MD Anderson Cancer Center, the Opening Reception, the Young Fellows get together, and the Musicale which I understand will again include Dr. Alex Feldman who plays oboe with "The Alabama Winds". I look forward to seeing you at the meeting!

New Members

It is my pleasure to announce seven new members since January 1 2018.

Robert B. Dixon, Fellow **Amit Bhargava**, Fellow
Ruth Ann Luna, Fellow **Aparna Ahuja**, Fellow
Neda Zarrin-Khameh, Fellow **Mahesheema Ali**, Associate Fellow
Harshit Seth, Fellow

If you have any comments, concerns or ideas you can contact me at: rohady@uabmc.edu.

Sincerely,

Robert Hardy, Ph.D., FACS

Officers and Executive Committee

Robert W. Hardy, PhD President (2017-18)	Philip R. Foulis MD, MPH (2017-20)
John Hicks, MD, DDS, PhD Vice-President (2017-18)	DeLu (Tyler) Yin, PhD Chair, Young Fellows Section
Keri Donaldson, MD, PhD Secretary (2015-18)	Robert L. Hunter, Jr., MD, PhD Director of Scientific Sections
Joshua A. Bornhorst, PhD Treasurer (2017-20)	Nina Tatevian, MD, PhD Editor-in-Chief
Kyle C. Kurek, MD (2015-18)	Charles D. Hawker, PhD, MBA Executive Director (non-voting)
Peter C. Hu, PhD (2016-19)	

2017-2018 ACS Committees

ATHLETICS COMMITTEE

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Robert L. Hunter, Jr., MD, PhD
Consolato Sergi, MD

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Armand B. Glassman, MD
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Peter Hu, PhD, Co-Chair
Awdhesh Kalia, PhD, Co-Chair
Roger Bertholf, PhD
John Hicks, MD, DDS
Robert L. Hunter, Jr., MD, PhD

YOUNG FELLOWS SECTION OVERSIGHT COMMITTEE

DeLu (Tyler) Yin, PhD, Chair
Lori Millner, PhD
Keri Donaldson, MD, PhD
Eric Rosenbaum, MD

OFFICERS OF THE AUXILIARY

Becky Hunter, President
Cynthia Hu, Past-President
Charlotte Cannon, Secretary
Adrienne Hopfer, Treasurer
Becky Hunter, Historian

New Members

FELLOW

Robert B. Dixon, Ph.D.
Director, Public Health Lab
South Carolina DHEC
Columbia, SC 29223

Harshit Seth, M.D.
UPMC Hospitalist Medical Director
Venetia, PA 15367

Ruth Ann Luna, Ph.D.
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Newsletter Trivia Question

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 Kamisha Johnson-Davis at: kamisha.johnson-davis@aruplab.com

PREVIOUS QUESTION

Hexokinase, which catalyzes the phosphorylation of glucose to form glucose-6-phosphate in the first step of anaerobic glycolysis, is used in a popular method to measure glucose in plasma. What other common method in a clinical laboratory uses hexokinase, and who is the method named after?

ANSWER

Creatine kinase (CK), in the Oliver and Rosalki method.

Members: Calling For Trivia Questions



Clinical Science Trumpet

Newsletter of the Association of Clinical Scientists

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Announcements, commentaries, and news/photos of members are welcome. Please send to the Editor at: kamisha.davis@hsc.utah.edu

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Ground Control at NASA's
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Space Shuttle Atlantis
(photo: courtesy of NASA)



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