The 139th Meeting of the Association of Clinical Scientists will be held in Hershey, Pennsylvania, May 15th through 18th, 2019. It will be sponsored jointly by the Penn State University, College of Medicine, Hershey, PA and the Geisinger Health System and Medical Center, Danville, PA. The meeting has two main themes: “Opioid Stewardship” and “Lab 2.0.” The opioid crisis is currently this nation’s most serious health issue, and Lab 2.0 is a new program to develop the evidence base for the valuation of clinical laboratories in the next era of health care, achieved through innovative programmatic leadership by laboratory professionals.

HIGHLIGHTS

The Abraham J. Gitlitz Memorial Lecture will be presented by Rachel L. Levine, M.D., Secretary of Health of the Commonwealth of Pennsylvania, and Professor of Pediatrics and Psychiatry at Penn State College of Medicine.

The Annual Banquet will include the presentation of the Association’s awards and our featured speaker will be Graham S. Hetrick, F.D., Coroner of Dauphin County, Pennsylvania, Adjunct Professor of Forensics and Human Anatomy at Harrisburg University School of Science and Technology, and host of the TV program, The Coroner: I Speak for the Dead.

The meeting will open on Thursday morning with lectures and tours of Penn State College of Medicine, Penn State Health Automated Testing Laboratory and Penn State Center for Simulation. On Thursday afternoon will be our usual cultural/historic tour for participants and spouses. We will start with a 75-minute tour with the Hershey Trolley Company called the Chocolate and History Tour. After that, participants can choose from the Hershey Gardens, the Hershey Story Museum, the Antique Automobile Museum of America, or other options. On Thursday evening there will be The Auxiliary.
2019 in Hershey... continued from page 1

an opening reception and dinner at the Hershey Conservatory featuring the Gitlitz Memorial Lecture by Dr. Rachel Levine on Combatting the Opioid Crisis.

Drs. Keri Donaldson and Myra Wilkerson, Program Committee Co-Chairs, and their committee of Drs. Laurence Demers, Magali Fontaine, Amanda Haynes, Jordan Newell, Jennifer O’Brien, and Jordan Olson, cordially invite you to attend this outstanding Association meeting.

ACCOMMODATIONS
Our headquarters for the meeting is the beautiful Hotel Hershey, 100 Hotel Road, Hershey, PA 17033 (telephone 855-729-3108).

Built in the early 1930’s, this AAA 4-Diamond Awardee has also received the Forbes Four Star Award and accolades from Historic Hotels of America and the Harrisburg Magazine Readers Poll. The Hotel Hershey, an historic landmark, is known for its refined elegance, signature service, and abundant amenities and is a one-of-a-kind destination in Chocolate Town® USA. It is situated high atop the town of Hershey and has 276 guest rooms, including 48 cottages, as well as 25,000 square feet of meeting and function space.

The Association’s guaranteed rate for the conference, including additional days before or after the meeting is $239 plus taxes. This rate will be honored until April 15, 2019. The hotel has established a URL link for attendees of the ACS meeting to make hotel reservations:

You may also use the phone number above and be sure to mention the Association of Clinical Scientists.

TRANSPORTATION
Hotel Hershey offers the following amenities to guests:
- Complimentary valet and self-parking
- Complimentary electric vehicle charging stations
- Complimentary shuttle service to the Hershey Attractions

AIRPORTS:
Harrisburg International Airport – 15 minutes away – website: www.flyhia.com
Philadelphia International Airport – 2 hours away – website: www.phl.org
Baltimore/Washington Airport – 2 ½ hours away – website: www.bwiairport.com

TRAIN:
Amtrak: Harrisburg Train Station is 12 miles from Hershey

GROUND:
Hershey is 90 miles from Baltimore, MD; 175 miles from New York City; 150 miles from Newark, NJ; 140 miles from Washington, DC; 100 miles from Philadelphia; 200 miles from Pittsburgh, PA.

Rental car service is available at the airports or can be arranged through the hotel concierge. Also, through the hotel concierge you can arrange a round trip service to and from the airport for $27.00. You would need to provide your arrival and return flight information to the concierge when making that reservation. There is local taxi service available as well as Uber.

Details about transportation to Hershey, through Harrisburg International Airport or other routings can be found on the Association’s website at:
http://www.clinicalscience.org/annualmeeting.html#Transportation

Continued on page 3
Thursday, May 16, 2019

7:00 a.m.  Registration: Desk to the left of the Front Desk of the Hotel

8:30 a.m.  First hotel shuttle to begin trip to Penn State Hershey Medical Center from Main Lobby

9:00 a.m.  Welcome and Continental Breakfast, Room C5702, Dept. of Biochemistry
           Educational tours of Penn State College of Medicine, Penn State Center for Simulation and Penn State Health Automated Testing Laboratory, Department of Laboratory Medicine and Pathology

11:30 a.m. Return to the Hotel Hershey

12:00 p.m. Lunch on your own

1:30 p.m.  Tour on the Hershey Trolley Company—Chocolate and History Tour, a 75-minute tour of Hershey

3:00 p.m.  Choice of tours on your own:
           • The Hershey Gardens (on the Hotel Hershey property); complimentary tickets for Hotel Guests
           • The Hershey Story Museum (downtown Hershey—transportation provided); complimentary tickets for Hotel Guests
           • Other sites of interest: Hershey Chocolate World, Antique Automobile Museum of America, The Spa at the Hotel Hershey, Outlets of Hershey for shopping

6:00–7:00 p.m. Welcome and Cocktail Reception—The Milton and Catherine Hershey Conservatory at the Hershey Gardens (Hotel Hershey property); Tour of the Butterfly Atrium adjacent to the Conservatory. Shuttle will run from 5:45 p.m. to 6:45 p.m. and return from 8:30 p.m. to 9:30 p.m. back to the Hotel Lobby

7:00 p.m.  Dinner with speaker:
           Abraham J. Gitlitz Memorial Lecture
           Dr. Rachel Levine, Physician General of Pennsylvania, Combating the Opioid Crisis

continues on page 4
Friday, May 17, 2019

7:00 a.m.  Registration—Starlight Terrace East and West (Hotel Hershey)

7:00–8:00 a.m.  Continental Breakfast

8:00 a.m.  President’s Welcome: Robert Hardy
Co-Chairs’ Welcome: Keri Donaldson, Myra Wilkerson

Session A: Opioid Stewardship—Keri Donaldson, Chair

Topics:
1. Basic Science of Addiction: Man to Mouse
2. Diagnosis/Epidemic
3. Treatment/Mentoring
4. Epidemic Update

8:15–8:45 a.m.  Keri Donaldson, M.D., MSCE, F.C.A.P, Penn State Health/Penn State College of Medicine, Prescient Medicine, Hershey, PA

8:45–9:15 a.m.  Patricia Sue Grigson, Ph.D., Penn State Health/Penn State College of Medicine, Hershey, PA

9:15–9:45 a.m.  Erin Deneke, Ph.D., Caron Treatment Centers, Wernersville, PA

9:45–10:15 a.m.  Jeanine M. Buchanich, MEd, Ph.D., University of Pittsburgh Graduate School of Public Health, Pittsburgh, PA

10:15 a.m.  Refreshment Break

10:30–11:00 a.m.  Elsie Yu, Ph.D., DABCC, FAACC
Geisinger Health System, Geisinger Medical Laboratories, Danville, PA

11:00–11:30 a.m.  David Cardamone, Ph.D., Prescient Medicine, Hershey, PA

12:00 p.m.  Adjournment for Lunch—Castilian Room (reserved tables for all scientists ≤ age 45
Moderator: Robert Hardy, ACS President
Four 10-minute oral presentations by the 2019 recipients of ACS Travel Grants

1:15–2:00 p.m.  Laurence M. Demers, Ph.D., FACB, DABCC, Penn State Health/Penn State College of Medicine, Hershey, PA

2:00–2:30 p.m.  Gregory J. Kuehn, MBA, Prescient Metabiomics, Hershey, PA

2:30–3:30 p.m.  Poster Session on the Starlight Veranda (held in the Tea Room in case of inclement weather)

3:30 p.m.  Refreshment break

4:00–4:30 p.m.  Joseph Garbely, D.O., FASAM, Caron Treatment Centers, Wernersville, PA

4:30–5:00 p.m.  Sarah S. Kawasaki, M.D., Penn State Health, Pennsylvania Psychiatric Institute, Hershey, PA

5:00 p.m.  Session adjourns

6:00 p.m.  Reception—Blue Mountain Room (Hotel Hershey)

7:00 p.m.  Annual Banquet and Awards Presentation—Blue Mountain Room (Hotel Hershey)
Robert Hardy, ACS President, Master of Ceremonies
Speaker: Graham Hetrick, Coroner, Dauphin County, PA

Saturday, May 18, 2019

7:00–5:00 p.m.  Registration—Starlight Room (Hotel Hershey)

7:00–8:00 a.m.  Continental Breakfast

Session C: Starlight East - Lab 2.0

8:00–8:20 a.m.  Myra L. Wilkerson, Geisinger Health System, Danville, PA, Overview of Lab 2.0

8:20–8:40 a.m.  Jeff Pritchard, Geisinger Health System, Danville, PA, Quality Assurance in Anatomic Pathology

8:40–9:00 a.m.  Michelle Grant, Geisinger Health System, Danville, PA, Reflex Anemia Testing

9:00–9:20 a.m.  Jordan Olson, Geisinger Health System, Danville, PA, Overview of Risk Adjustment

9:20–9:40 a.m.  Amanda Haynes, Geisinger Health System, Danville, PA, Blood Management Programs

9:40–10:00 a.m.  Elsie Yu, Geisinger Health System, Danville, PA, How the Lab Collaborates with Pharmacists and Clinicians to Fight the Opioid Epidemic

10:00 a.m.  Refreshment Break

10:20–10:40 a.m.  Wallace H. Green, Penn State College of Medicine, Hershey, PA

10:40–11:00 a.m.  Keith Cheng, Penn State College of Medicine, Hershey, PA

10:40–11:00 a.m.  Thomas P. Nifong, Pacific Edge USA Ltd., The Emerging Role of High Performance Non-Invasive Molecular Diagnostic Testing in Bladder Cancer

continues on page 7
Association of Clinical Scientists
Registration for 139th Meeting, Hershey, PA, May 15–18, 2019

ATTENDEE INFORMATION

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**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.

**Full 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 luncheons, one banquet ticket and CE credits, if desired.

**Meeting Registration, Complimentary**
For all speakers only attending the meeting for the day of their lecture; excludes banquet and continuing education

**Single Day Registration**
For either Friday or Saturday; includes luncheon and continuing education credits if desired

**Thursday, May 16**

**Tours**
Penn State Health Automated Testing Lab and Penn State Center for Simulation; Complimentary for all attendees with Full Meeting Registration

**Chocolate and History Tour of Hershey**
Provided by the Hershey Trolley Works

**Welcome Reception, Dinner, and Abraham J. Gitlitz Memorial Lecture**
Hershey Conservatory and Butterfly Atrium; open to all meeting registrants and accompanying persons

**Friday, May 17**

**Luncheon, presentation of travel grant awards, reserved seating for all young Scientists, age ≤ 45**
Included with full or single day registration

**Extra tickets to Awards Banquet and Reception**

**Saturday, May 18**

**Luncheon in Fountain Lobby with Full Registration**
Included with full or single day registration

**Musicale, with Wine and Cheese Intermission**
Complimentary for all attendees (please indicate attendance for headcount estimation)

**Include Renewal of Dues (Fellows)**

**Renewal of Dues (Assoc. Fellows)**

Total Payment Enclosed

*continues on page 6*
Association of Clinical Scientists
Registration for 139th Meeting, Hershey, PA, May 15–18, 2019

PAYMENT OPTIONS
Cancellation with full refund will be accepted until April 6, 2019.
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 _____________________________________
11:20–11:40 a.m. **Philip R. Foulis,** James A. Haley Veterans’ Hospital, Tampa, FL, Proficiency Testing Program: Alignment with Patient Testing, Automation, Monitoring, and Error Reduction

11:40–12:00 p.m. **Charles D. Hawker,** ARUP Laboratories, Salt Lake City, UT, Automation and Process Engineering are Required to Achieve Six Sigma Quality: a 27-year History of Continuous Improvement

12:00 p.m. Lunch in the Fountain Lobby

**Session D: Starlight East - Anatomic Pathology submitted abstracts**

1:15–1:35 p.m. **Neda Zarrin-Khameh,** Baylor College of Medicine, Houston, TX, Glycogenated Squamous Cells in Cervical PAP Test—Ignored or Not Recognized?

1:35–1:55 p.m. **Charlotte Myers** and **Roberto Barrios,** Houston Methodist Hospital, Houston, TX, Autopsy Liver

1:55–2:15 p.m. Presentation and speaker T.B.A.

2:15–2:35 p.m. Presentation and speaker T.B.A.

2:35–2:55 p.m. Refreshment Break

3:00–3:20 p.m. Presentation and speaker T.B.A.

3:20–3:40 p.m. Presentation and speaker T.B.A.

3:40–4:00 p.m. Presentation and speaker T.B.A.

4:00 p.m. Session adjourns

1:15–1:35 p.m. **Kilmer S. McCully,** VA Boston Healthcare System, Boston, MA, Cholesterol Inhibition of Thiorectinaco Ozonide Loss from Mitochondria Explains Protection Against Mortality

1:35–1:55 p.m. **Yusheng Zhu,** Penn State College of Medicine, Hershey, PA

1:55–2:15 p.m. Presentation and speaker T.B.A.

2:15–2:35 p.m. Presentation and speaker T.B.A.

2:35–2:55 p.m. Refreshment Break

3:00–3:20 p.m. Presentation and speaker T.B.A.

3:20–3:40 p.m. Presentation and speaker T.B.A.

3:40–4:00 p.m. Presentation and speaker T.B.A.

4:00 p.m. Session adjourns

4:05–5:30 p.m. Association Business Meeting in the Blue Mountain Room

7:00–9:00 p.m. Reception with wine & hors d’oeuvres, Musicale and Art Exhibit in the Overlook Room

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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 Stephen M. Roper at: smroper@wustl.edu.

**PREVIOUS QUESTION**

In chromatography, band broadening is a phenomenon which can cause problems resolving compounds that elute at similar retention times. Plate number (N) is a quantitative measure of column efficiency related to the observed peaks’ width. The higher the value for N, the better the column efficiency. Alternatively, height equivalent of a theoretical plate (HETP) can be calculated to determine the length of column required to obtain one plate. The lower the value for HETP, the better the column efficiency. In addition to these, what other equation can be used to account for factors such as linear velocity, eddy diffusion, longitudinal diffusion, and mobile/stationary phase mass transfer, that will affect chromatographic efficiency?

**ANSWER**

Roger Bertholf answered correctly: van Deemter equation

**CURRENT QUESTION**

Cocaine was first isolated from the coca plant by Gaedcke in 1855, and an improved purification process was described by Niemann in his PhD thesis, published in 1860. A mere fourteen years later, in 1874, another powerfully addictive drug was first synthesized, and the subsequent widespread abuse of cocaine and this drug helped prompt passage of the Harrison Narcotics Act of 1914. What was the drug?

**ANSWER**

to appear in the next Clinical Science Trumpet

Submit your answer by email to Stephen M. Roper at: smroper@wustl.edu.
Greetings and Happy New Year! It is my honor to update you on important positive happenings in the ACS for 2019 and reflect on highlights from 2018.

**Annual Meeting**
The 2019 ACS annual meeting will be our 139th and is fast approaching. Once again the Program Committee has put together an exciting program focusing on, Opioid Stewardship and Lab 2.0 (lab of the future). The Abraham J. Gitlitz Memorial Lecture will be presented by Rachel Levine MD, Secretary of Health and Physician General of Pennsylvania who will speak on one of our themes, “Opioid Stewardship”. Our Banquet speaker, Graham S. Hetrick, FD will present his talk on: “The Coroner: I speak for the dead”.

Our lab tours will include data centers and wet training labs at Penn State Health and Hershey Medical Center. Our cultural/historic bus tour for participants and spouses will be going to the National Auto Club of America, the Hershey Story Museum, and the Hershey Rose Garden and Conservatory. All of this headquartered at the the beautiful Hershey Hotel which is renowned for its refined elegance, signature service and abundant amenities in Chocolate Town® USA. http://www.thehotelhershey.com/overview.php

**Abstracts for 2019 Annual Meeting**
Please remember the deadline for submission of abstracts is Friday, February 15 and attendees will have the option of giving an oral presentation or a poster format. So mark your calendars for May 15-18, 2019, I look forward to seeing you at the opening session!

**Looking back on 2018**
It has been a great year in which our membership has grown, financial grounding has remained solid and we had an outstanding annual meeting in Houston including an eye-opening visit to the NASA Center.

At the annual meeting our membership voted to accept several proposed amendments to the Constitution and Bylaws. These amendments have increased the Executive Committee (EC) from 10 to 11 members and created the new position of President-Elect. In addition, these amendments provide for direct election of one Fellow to the Executive Committee each year. These elected members of the Executive Committee replace two Past Presidents who will now be part of a Past Presidents Council, chaired by the President. These changes will provide considerably more experience in Association leadership for future Presidents, offer more opportunity for younger members to become involved in leadership, retain the knowledge and experience of the immediate three past presidents in the Past Presidents Council, provide a logical progression and learning curve for the Associations leadership and by having 11 EC members will prevent tie votes.

It has been a year that included a $10,000 per month Google Adwords grant which can be used to promote our Association and working to update our Committees, Scientific Sections, electronic membership database, and journal. The journal’s Senior Associate Editor, Dr. Kyle Kurek, will be unveiling a new structure for the Editorial Board in 2019, which will align with our Scientific Sections. The Website and Trumpet newsletter have evolved into highly valued sources of information and pride for the Association. Dr. Phil Foulis, our past president, has kept our Association’s name at the forefront of Improving Diagnosis and reducing Diagnostic errors. Overall it has been a great year, which we should be happy with, but there is much more to be done, so please get involved with your Association.

**New Members**
It is my pleasure to announce five new members since the September Newsletter (listed below) and an overall increase of 17 new members in 2018.

- Zahir Hassan Alshehry, Ph.D., Fellow
- Christopher P. Marquez, M.D., Associate Fellow
- Glenn George, DHSc, Fellow
- Gopi K. Vadlamudi, M.D., Fellow
- Jordan M. Newell, M.D., Fellow

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

Sincerely,
Robert Hardy, Ph.D., FACSc

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**The Young Fellows Section**
The Young Fellows Section aims to foster career growth by providing opportunities to network, build relationships, give presentations and receive awards at our annual meeting; mentorship from more experienced members; and the ability to publish or gain experience reviewing manuscripts through the ACS journal Annals of Clinical and Laboratory Science.

On Friday, May 17th, during the Annual Meeting, the Young Fellows Section will be having a sponsored lunch. During this time, we’ll hear some words from the President of our organization, Dr. Hardy, and hear talks from our four travel grant winners. This will be also be a good opportunity to meet your peers and learn about ways to get involved with the organization, such as publishing in our journal or serving on committees or in an elected position. I hope to see you there!

Sincerely,
Alex Feldman, MD
Chair, Young Fellows Section, Association of Clinical Scientists
Pediatric Pathology Fellow, Nationwide Children’s Hospital
email: Alex.Feldman@nationwidechildrens.org

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**Clinical Science Trumpet**

www.clinicalscience.org
New Members

FELLOW
Jordan Mark Newell, M.D.
Assistant Professor, Anatomic Pathology
Unit Director, Gynecological Pathology
Penn State University College of Medicine/Penn State Milton S. Hershey Medical Center, Hershey, PA

Gopi K. Vadlamudi, M.D., MPH, FHM
Medical Director, Hospital of Medicine
Monongahela Valley Hospital, UPMC, Canonsburg, PA

Glenn George, DHSc., M.S.
Laboratory Director/Professor, Clinical Laboratories/BioMed Science, University of Wisconsin-Milwaukee, Kenosha, WI

Zahir H. Alshehry, BSc., MSc., Ph.D.
Consultant Clinical Scientist, Biochemist
Head, Biochemistry Laboratory
Head of POCT, Phlebotomy, Samples Processing and Send-out sections
Directory of the Saudi Board for Clinical Biochemistry program (SBCB)
Pathological and Clinical Laboratory Medicine Administration (PCLMA)
King Fahad Medical City

ASSOCIATE FELLOW
Christopher P. Marquez, M.D., DABCC
Molecular Genetic Pathology Fellow, Pathology
Dickinson, NM

The Auxiliary

New Year’s is a time of reflection appreciating the good times had in Houston, Texas last May and to properly set our sights on the spring meeting, May, 2019 in Hershey, Pennsylvania. The Hershey Hotel is “stunning”—come join us! We look forward to renewing old friendships and welcoming newcomers, while we explore Hershey, PA. Preliminary plans for sight seeing are being made now and you can look forward to our Newsletter in March via e-mail.

Sincerely,
Dot Brown, President
Hershey, Pennsylvania, is most famous for the chocolate empire established by Milton Hershey. Hershey’s Kisses—perhaps its most famous candy—were introduced in 1907 and have maintained their iconic shape since! Milton Hershey named the first two streets in Hershey “Chocolate Avenue” and “Cocoa Avenue” to form the town square. Many other streets in Hershey were named relating to chocolate by Mr. Hershey.

Chocolate Avenue is known for its Hershey’s Kisses-shaped—and unique—street lamps. Manufactured in 1963 using a process called aluminum metal spinning, they were designed by engineers with the Line Material Company. Some of the lamps are designed as wrapped kisses, while others are designed as unwrapped kisses.