BRIDGING DIABETES RESEARCH WITH GROUNDBREAKING DISCOVERIES

scientificsessions.diabetes.org

#ADA2019

ADVANCE PROGRAM
ABOUT THE MEETING
The Scientific Sessions offers researchers and health care professionals the unique opportunity to share ideas and learn about the significant advances and breakthroughs in diabetes.

Participants will receive exclusive access to more than 180 sessions and 2,000 original research presentations, take part in provocative and engaging exchanges with leading diabetes experts, expand their professional networks, and so much more.

The program is categorized into 8 distinct theme areas, allowing participants to focus on their specialty or expand their knowledge in other areas.

Theme Areas:
- Acute and Chronic Complications
- Behavioral Medicine, Clinical Nutrition, Education, and Exercise
- Clinical Diabetes/Therapeutics
- Epidemiology/Genetics
- Immunology/Transplantation
- Insulin Action/Molecular Metabolism
- Integrated Physiology/Obesity
- Islet Biology/Insulin Secretion

Don’t miss this opportunity to join your colleagues at the world’s largest, most prominent meeting on diabetes—the American Diabetes Association’s 79th Scientific Sessions (#ADA2019)!

LOCATION AND DATES
The meeting will take place at the Moscone Center, 747 Howard Street, San Francisco, CA.

The program will begin on Friday, June 7 at 11:30 a.m., and conclude on Tuesday, June 11 at 11:45 a.m.

LEARNING OBJECTIVES
The Scientific Sessions offers comprehensive educational programming covering the latest in the field of diabetes. The program is designed for physicians, scientists, researchers, nurses, dietitians, pharmacists, psychologists, and other health care professionals.

At the conclusion of this activity attendees will be able to:
- Identify the 2019 ADA Standards of Care for classifying, diagnosing, preventing, and treating prediabetes and diabetes
- Assess non-pharmacologic treatment options for individualizing treatment protocols for the management of hyperglycemia and hypoglycemia
- Apply clinical decision-making tools to the assessment and treatment of the complications related to diabetes
- Develop a more aggressive, effective, physiological, psychological, and behavioral treatment plan for patients with diabetes
- Cite the research into current, emerging, and novel therapies for type 1 and type 2 diabetes
- Discuss proven education strategies for increasing the impact of diabetes education with individual patients
- Interpret the latest findings in the areas of epidemiology, genetics, immunology, transplantation, and islet biology as they relate to diabetes

MEETING HIGHLIGHTS
Special Addresses and Award Lectures
- President, Health Care & Education Address
  Gretchen Youssef, MS, RD, CDE
- President, Medicine & Science Address
  Louis H. Philipson, MD, PhD, FACP
- Banting Medal for Scientific Achievement
  Stephen P. O’Rahilly, MD
- Outstanding Scientific Achievement Award Lecture
  Ismaa Sadaf Farooqi, PhD
- Outstanding Educator in Diabetes Award Lecture
  Virginia Valentine, APRN-CNS, BC-ADM, CDE, FAADE
- Kelly West Award for Outstanding Achievement in Epidemiology Lecture
  Elizabeth Mayer-Davis, PhD, MSPH, RD
- Richard R. Rubin Award Lecture
  Frank J. Snoek, PhD
- Roger Pecoraro Award Lecture
  James S. Wrobel, DPM, MS
- Norbert Freinkel Award Lecture
  Assiamira Ferrara, MD, PhD
- Edwin Bierman Award Lecture
  Peter Rossing, MD, DMSc

IMPORTANT DATES TO REMEMBER

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Last day to register at the Advance rate</td>
<td>April 25</td>
</tr>
<tr>
<td>Last day to cancel meeting registration and receive a partial refund (50% of registration fee)</td>
<td>April 25</td>
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<tr>
<td>Last day to reserve hotel rooms</td>
<td>May 10</td>
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<tr>
<td>Cancel hotel reservations to avoid penalty</td>
<td>72 hours</td>
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<td></td>
<td>prior to arrival</td>
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</table>
Highly Anticipated Study Announcements
Witness the most highly anticipated study announcements of 2019. New data from cardiovascular prevention trials are among the key findings being presented at this year’s Scientific Sessions. Make your travel reservations accordingly so that you can attend all these great sessions in person!

- The Vitamin D and Type 2 Diabetes (D2d) Study—A Multicenter Randomized Controlled Trial for Diabetes Prevention on Friday from 11:30 a.m.-12:30 p.m.
- Longitudinal Outcomes in Youth with Type 2 Diabetes—The TODAY2 Study on Saturday from 1:45 p.m.-3:45 p.m.
- PREVIEW Study Results—Prevention of Diabetes through Lifestyle Intervention and Population Studies around the World on Saturday from 4:00 p.m.-6:00 p.m.
- Results and Comparisons from the RISE Clinical Trial—Adult Medication Study on Sunday from 12:00 p.m.-1:00 p.m.
- DECLARE-TIMI 58 Trial on Sunday from 2:15 p.m.-4:15 p.m.
- Once-Weekly Dulaglutide and Major Cardiovascular Events—Results of the REWIND Trial on Sunday from 4:30 p.m.-6:30 p.m.
- The CAROLINA Trial—First Results of the Cardiovascular Outcomes Trial Comparing Linagliptin vs. Glimepiride on Monday from 4:30 p.m.-6:30 p.m.
- CREDEENCE and CARMELINA—Results from Two Major Clinical Trials in Kidney and Cardiovascular Disease in Diabetes on Tuesday from 7:30 a.m.-9:30 a.m.
- Oral Semaglutide—The PIONEER Program Trials on Tuesday from 9:45 a.m.-11:45 a.m.

Mini-Symposia
Mini-Symposia are 1-hour sessions that normally include 1-2 speakers. Speakers present on a topic for a maximum of 20 minutes with the remainder of the time devoted to questions and discussion with the audience.

Professional Interest Groups
Professional Interest Group Discussions are held Saturday, Sunday, and Monday during the lunchtime hour. Expect lively conversations, dialogue, and debate with professionals in your specialty such as islet biology, quality improvement, and technology. Learn more and join two groups today at professional.diabetes.org/interestgroups.

Oral Presentations
Abstracts selected for oral presentation are considered to be the best of the thousands of abstracts submitted to the Scientific Sessions. Choose from 366 original presentations highlighting the most innovative research not found at any other meeting.

Poster Presentations
Explore more than 2,000 posters displaying the latest investigative methods in the Poster Hall on Saturday, Sunday, and Monday. Poster presenters will be at their poster boards for 1-hour on an assigned day to discuss their research with attendees.

ePosters
Each poster will have a corresponding barcode on its board. Scan the barcode with your smartphone, tablet, or handheld device to access an electronic version of the poster, corresponding abstract, and audio commentary (if provided). Computer kiosks will also be located within the Poster Hall for ePoster viewing.

Moderated Poster Discussions
Moderators will lead attendees on tours of up to 6 posters sharing their perspectives and highlighting novel or recent advancements in question and answer discussions with presenters. Discussions will take place on Saturday, Sunday, and Monday in the Poster Hall.

ePoster Theaters
Select posters will be presented electronically using ePosters. As with the Moderated Poster Discussions, up to 6 ePosters will be included in each Theater. Sessions will take place on Saturday, Sunday, and Monday at ePoster Theaters A and B in the Exhibit Hall.

 Earn up to 35 Continuing Education Credits
Continuing Education Credit is available for physicians, family physicians, international physicians, physician assistants, nurses, pharmacists, dietitians, psychologists, social workers, and certified diabetes educators.

ADA Events App
Access the meeting on-the-go. Download the 79th Scientific Sessions meeting app to access information on your smartphone, tablet, or handheld device. Visit scientificsessions.diabetes.org in May for more details.

Social Media
Attendees are encouraged to engage and promote updates from the 79th Scientific Sessions on social media using the official meeting hashtag, #ADA2019. The American Diabetes Association will share live updates on Facebook (facebook.com/DiabetesPro), Twitter (twitter.com/ADA_DiabetesPro), and LinkedIn (linkedin.com/company/american-diabetes-association).
EXHIBIT HALL
The Exhibit Hall showcases products and services that will enhance your understanding of the latest groundbreaking technology and resources available today. The Exhibit Hall will be open on Saturday, Sunday, and Monday.

PRODUCT THEATERS
Industry experts will provide insight into diabetes services and products and demonstrate innovative equipment and technologies. Product Theaters will be scheduled during morning, lunch, and afternoon breaks in the Exhibit Hall on Saturday, Sunday, and Monday.

CORPORATE SYMPOSIA
Corporate Symposia are satellite programs that are planned and conducted by the corporate community in conjunction with the Scientific Sessions. These programs provide attendees with additional education and information opportunities.

Pre-registered attendees will receive an e-mail on or about Tuesday, April 2, which will include instructions on registering for the Corporate Symposia. Attendees who register after April 2 will be able to select the Corporate Symposia when registering. All programs will take place at the InterContinental San Francisco and the San Francisco Marriott Marquis.

Visit scientificsessions.diabetes.org in early-April for the most up-to-date schedule.

WOMEN’S INTERPROFESSIONAL NETWORK
The Women’s Interprofessional Network of the ADA (WIN ADA), is the world’s leading network of women clinicians, scientists, and educators within the diabetes field. WIN ADA will host multiple events at the Scientific Sessions, including an interactive mini-symposium on communicating science and an evening networking reception.

Learn more and become a WIN ADA member today at professional.diabetes.org/winada.

DIABETES IS PRIMARY
This interactive program, developed specifically for the primary care community, and held in conjunction with the Scientific Sessions will offer information needed to improve patient outcomes and enhance patient engagement. The program will be held on Friday.

Scientific Sessions attendees can sign up for Diabetes Is Primary at the $100 Early-Bird registration rate when registering for the Scientific Sessions. San Francisco-based clinicians not attending the Scientific Sessions can register at professional.diabetes.org/primary. (Registration for non-Scientific Sessions attendees will be $125 beginning April 1, 2019). Registration includes program admission, continuing education credits, course materials, and lunch.

Note: Diabetes Is Primary overlaps with other sessions held on Friday starting at 11:30 a.m.

New this Year!
As the use of mobile and online applications has grown in popularity, the need for printing large documents is no longer necessary. The ADA is taking a tangible step to reduce paper consumption and demonstrate our commitment to the environment. Specifically, the ADA will no longer print the Scientific Sessions Abstract Book or on-site daily newspaper. However, both will still be available through the Scientific Sessions meeting app and online.

SPECIAL EVENTS
ADA Networking Reception
Join us Friday evening at the Moscone Center (West Building) to meet and network with your colleagues from across the country or around the world during our Networking Reception. This is a great opportunity to renew connections with friends and colleagues or make new ones. Hors d’oeuvres and refreshments will be provided.

5K@ADA Fun Run/Walk
The 5K@ADA Fun Run/Walk, supported by Novo Nordisk, will be held on Sunday morning at 6:30 a.m. Race in style by sporting a 5K@ADA running shirt available for $20 when you register for the meeting. A limited number of shirts will be available for purchase onsite for $25. Sign up for the Fun Run/Walk by visiting tracs.net/ADASK. The event is free to all registered attendees.

FIFA Women’s World Cup Viewing Lounge
You don’t have to miss sessions to keep up with the 2019 FIFA’s Women’s World Cup. Stop by the World Cup Viewing Lounge between sessions to see how your favorite team is doing.
Support the American Diabetes Association by Wearing Red
Wear red on Sunday to show your support of the ADA and our mission to prevent and cure diabetes and to improve the lives of all people affected by diabetes. Red merchandise will be available for purchase onsite at the Shop Diabetes Store. Every purchase supports diabetes research, advocacy, awareness, and education programs.

REGISTRATION CATEGORIES

Member
Medicine and Science or Health Care and Education Professional Members.

Have your Professional Member ID number available to register for the meeting as a member. Professional Members who purchase a full meeting registration will receive online access to the Scientific Sessions webcasts free of charge!

Non-Member
For those who are not Medicine and Science or Health Care and Education Professional Members.

Become a member when you register for the Scientific Sessions and save up to $320 on your registration.

REGISTRATION RATES

<table>
<thead>
<tr>
<th></th>
<th>ADVANCE 2/22/19 - 4/25/19</th>
<th>FINAL 4/26/19 - 6/11/19</th>
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<tbody>
<tr>
<td>Member*</td>
<td>$555</td>
<td>$605</td>
</tr>
<tr>
<td>Non-Member</td>
<td>$875</td>
<td>$925</td>
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<tr>
<td>Student/Resident/Fellow</td>
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<td>$320</td>
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<tr>
<td>One-Day Registration — Member*</td>
<td>$310</td>
<td>$320</td>
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<tr>
<td>One-Day Registration — Non-Member</td>
<td>$400</td>
<td>$410</td>
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*To qualify for the Member rate your Medicine and Science or Health Care and Education Membership must be active through June 30, 2019 at the time of registration.

Support the American Diabetes Association by Wearing Red

Student/Resident/Fellow
Available to those currently enrolled in 1 of these programs. Proof of status in a program must be submitted in order to register.

One-Day
Provides admittance to all sessions, including the Exhibit and Poster Halls (if open), for the selected day. You are allowed to register for only 1 One-Day Registration.

Note: Children under the age of 18, even if paid registrants, will not be permitted access to session rooms, the Exhibit Hall, or the Poster Hall. Exceptions will be made for nursing mothers, but for safety reasons, strollers cannot be allowed.

Register Online
Go to scientificsessions.diabetes.org and click on the “Registration Information” tab. Online registration is fast, easy, and secure. You will receive your confirmation letter and periodic updates via e-mail. If you are unable to register online, a downloadable registration form is available on the Scientific Sessions website. Attendees should bring their confirmation letter with them onsite to receive their meeting materials. The barcode included on your confirmation letter will greatly speed you through registration. A picture ID will be required to pick up your registration materials.

Questions?
Contact the ADA Registration and Housing Customer Care Center Monday through Friday, 9:00 a.m. to 9:00 p.m. (Eastern Time) at 866-290-9910 (Toll Free U.S. & Canada) or +415-268-2086 (International). Visit the ADA Support Center at ada.cmrushelp.com.

Media Registration
The ADA provides complimentary access to the Scientific Sessions to credentialed members of the media, including print, broadcast, and online media for the express purpose of gathering news and information to produce press coverage of the 79th Scientific Sessions.

Media representatives welcome to attend include reporters, writers, photographers, and videographers. News organizations seeking media credentials must be represented by editorial staff, and media registration is limited to 2 individuals per outlet/news organization.

For further information regarding registration eligibility and submission requirements for your news organization, contact scisessionspress@diabetes.org with any questions.
Go to scientificsessions.diabetes.org and click on the “Hotel Information” tab. Reserving your room online allows you to see hotel availability in real-time and allows us to send confirmation letters instantly. It also gives us a fast and easy way to contact you via e-mail with any changes or updates.

Hotel Reservations
Support the ADA by booking your hotel room within the Scientific Sessions housing block through our official housing company, CMR. Hotel reservations can be made until May 10 based on availability. A listing of official ADA hotels, with rates and a locator map, is available at scientificsessions.diabetes.org.

Reservations are available on a first-come, first-served basis. Reserve your room early for the best selection. All hotels require a credit card guarantee. If you are unable to reserve online, a downloadable housing form is available on the Scientific Sessions website.

International Group Organizers
If you are organizing an international group (five or more rooms) to attend the Scientific Sessions, you may reserve your hotel rooms through our official housing company’s International Group Division, CMR’s Global Group Services website at ada-cmrglobalgroupservices.com, or contact them via e-mail at ada@cmrglobalgroupservices.com for an all-inclusive group housing package. For any questions regarding group registration, visit the ADA Support Center at ada.cmrushelp.com.

Hotel Cancellations and Changes
All requests for cancellations or changes can be made by going online or by contacting ADA’s official housing company. Changes received after May 10 will be subject to hotel availability. Reservations must be cancelled at least 72 hours prior to arrival to avoid penalty charges.

ADA Shuttle Bus Transportation
Attendees who reserve their room within the Scientific Sessions housing block will receive a shuttle pass, enabling them to ride the ADA shuttle system at no additional cost. Attendees who reserve their rooms through other means will not receive a shuttle pass. Shuttle passes will be available for purchase in advance through the registration site and onsite at the meeting at a cost of $75 per person. The pass is valid throughout the duration of the meeting.

Questions?
Contact the ADA Registration and Housing Customer Care Center Monday through Friday, 9:00 a.m. to 9:00 p.m. (Eastern Time) at 866-290-9910 (Toll Free U.S. & Canada) or +415-268-2086 (International). Visit the ADA Support Center at ada.cmrushelp.com.

TRAVEL INFORMATION
Special Travel Discounts
The ADA is pleased to offer travel discounts for Delta Air Lines, Southwest Airlines, United Airlines, Avis, Enterprise, and Hertz car rentals, and SuperShuttle airport transportation for the Scientific Sessions.

Visit scientificsessions.diabetes.org and click on the “Travel and Transportation Information” tab for more information.

Visa Requirements
Attendees from outside the U.S. may need to apply for a visa at the American Embassy, consulate, or other visa issuing office in their country of origin. Please begin your visa application process as soon as possible, as it can take several months to receive approval.

If a letter of invitation is needed for your visa application, go to scientificsessions.diabetes.org and click on the “Travel and Transportation Information” tab to download the letter.

SPOTLIGHT ON SAN FRANCISCO
San Francisco is often called “everybody’s favorite city,” a title earned by its scenic beauty, cultural attractions, diverse communities, and world-class cuisine. Measuring 49 square miles, this very walkable city is dotted with landmarks like the Golden Gate Bridge, cable cars, and the largest Chinatown in the United States. A stroll of the city’s streets can lead to Union Square, the Italian flavored North Beach, Fisherman’s Wharf, the Castro, and the Mission District, with intriguing neighborhoods to explore at every turn. San Francisco is also one of America’s greatest dining cities. The diverse cultural influences, proximity of the freshest ingredients, and competitive creativity of the chefs result in unforgettable dining experiences.

San Francisco has all-around appeal, so come early or stay late to explore the beauty and culture of San Francisco.
ACCREDITATION STATEMENTS AND CONTINUING EDUCATION CREDIT

Physicians, Nurses, and Pharmacists
In support of improving patient care, the American Diabetes Association is jointly accredited by the Accreditation Council for Continuing Medical Education (ACCME), the Accreditation Council for Pharmacy Education (ACPE), and the American Nurses Credentialing Center (ANCC) to provide continuing education for the healthcare team.

This activity was planned by and for the healthcare team, and learners will receive 35 Interprofessional Continuing Education (IPCE) credit for learning and change.

Nurses: This includes a maximum of 32 pharmacology-related contact hours.

Pharmacists: The Universal Activity Number is: JA400-8193-000-19-002-L01-P

Physicians for ABIM Maintenance of Certification
Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 35 Medical Knowledge only MOC points in the American Board of Internal Medicine’s (ABIM) Maintenance of Certification (MOC) program. It is the CME activity provider’s responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.

Physicians from Europe
UEMS/ACCME CME credit recognition: The American Medical Association (AMA) has an agreement of mutual recognition of CME credit with the UEMS. Under the terms of this agreement, the European Accreditation Council for Continuing Medical Education (EACCME), the accrediting arm of the UEMS, will convert CME credit for live activities certified by the AMA.

Family Physicians
Application for CME credit has been filed with the American Academy of Family Physicians. Determination of credit is pending.

Physician Assistants
The American Diabetes Association has been authorized by the American Academy of PAs (AAPA) to award AAPA Category 1 CME credit for activities planned in accordance with AAPA CME Criteria. This activity is designated for 35 AAPA Category 1 CME credits. PAs should only claim credit commensurate with the extent of their participation.

Dietitians
The American Diabetes Association is a Continuing Professional Education (CPE) Accredited Provider with the Commission on Dietetic Registration (CDR). Registered dietitians (RDs) and dietetic technicians, registered (DTRs) will receive 35 continuing professional education units (CPEUs) for completion of this program/material. Activity Number: 145184

Psychologists
Continuing Education (CE) credits for psychologists are provided through the co-sponsorship of the American Psychological Association (APA) Office of Continuing Education in Psychology (CEP). The APA CEP Office maintains responsibly for the content of the programs.

Social Workers
As a Jointly Accredited Organization, the American Diabetes Association is approved to offer social work continuing education by the Association of Social Work Boards (ASWB) Approved Continuing Education (ACE) program. Organizations, not individual courses, are approved under this program. State and provincial regulatory boards have the final authority to determine whether an individual course may be accepted for continuing education credit. The American Diabetes Association maintains responsibility for this course. Social workers completing this course receive 35 continuing education credits.

Certified Diabetes Educators
To satisfy the requirement for renewal of certification by continuing education for the National Certification Board for Diabetes Educators (NCBDE), continuing education activities must be diabetes related and approved by a provider on the NCBDE List of Approved Providers (www.ncbde.org). NCBDE does not approve continuing education. The American Diabetes Association is on the NCBDE List of Approved Providers.

To Obtain Continuing Education Credit
Certificates of Completion/Attendance are provided to registered attendees based upon completion of the online evaluation. The link to the online evaluation will be emailed to participants on June 7. The continuing education evaluation system will be available through July 5. For questions regarding continuing education, please contact professionaleducation@diabetes.org.
<table>
<thead>
<tr>
<th>Time</th>
<th>Acute and Chronic Complications</th>
<th>Behavioral Medicine, Clinical Nutrition, Education, and Exercise</th>
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</thead>
</table>
| 11:30 a.m.-12:30 p.m. | Mini-Symposia  
Opioids, Cannabinoids, and Other Potentially Addictive Therapies in Painful Diabetic Neuropathy  
Hypoglycemia and Cardiovascular Events—A Causal Relationship?  
Joint ADA/ACC Mini-Symposium—Cardiovascular Disease in Patients with Diabetes | Mini-Symposia  
The Vitamin D and Type 2 Diabetes (D2d) Study—A Multicenter Randomized Controlled Trial for Diabetes Prevention  
Patient, Health Care Provider, and Researcher Perspectives on Exercise as an Appropriate Tool for Managing Cardiovascular Complications of Diabetes | Mini-Symposia  
How Do We Break the Gestational Diabetes Mellitus—Type 2 Diabetes Mellitus-Obesity Cycle?  
Screening for Complications in Youth with Type 1 Diabetes—Are We On the Right Path? | Mini-Symposium  
Learning from Atypical Diabetes | Mini-Symposium  
State-of-the-Art of Embryonic Stem Cells-Based Therapies in Type 1 Diabetes—The Road Ahead | Mini-Symposium  
Metformin Action—Who Is Really in Charge? | Mini-Symposium  
Evolving Treatments for Obesity | Mini-Symposium  
The Almighty Adipocyte |
| 12:45 p.m.-1:45 p.m. | Mini-Symposia  
Is Very Aggressive Lowering of LDL Cholesterol Worthwhile?  
Translation of Cardiorenal Outcomes Trials into Other Populations with Diabetes  
How to Help Your Patients and Your Bottom Line Using Novel Diabetic Retinopathy Diagnostic Tools  
I Can Tell When You Are Inflamed—Early Warning Systems in Diabetic Foot Self-Monitoring | Mini-Symposia  
Transition from Pediatric to Adult Diabetes Care—What’s Really Working?  
Using Innovative Educational Strategies to Reach the Underserved—Community Health Workers, Peer Educators, and More  
Women’s Interprofessional Network of the ADA (WIN ADA)  
Mini-Symposium—Using Tools and Strategies to Effectively Communicate Science | Mini-Symposia  
Digital Apps for Diabetes Treatment and Prevention—Opportunities and Challenges | Joint ADA/ASMBS Mini-Symposium—Interventional Treatment of Diabetes—The Scientific and Clinical Evidence Regarding Metabolic Surgery and Implementation into Clinical Practice | Mini-Symposium  
The Banting Exchange—The Almighty Adipocyte | Mini-Symposium  
Current Issues—Rigor and Integrity in Diabetes Research |
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<tr>
<td>2:00 p.m.-4:00 p.m.</td>
<td>Symposium Diabetic Kidney Disease and Cardiovascular Disease in Diabetes</td>
<td>Symposium Shared Decision Making When Choosing Pumps and Sensors</td>
<td>Symposium Paternal Programming—I’m Your Papa Opportunities and Challenges of Real-World Evidence in Diabetes</td>
<td>Symposium The Environment and Diabetes</td>
<td>Symposium Novel Insights into the Role of the Adipocyte in Metabolic Dysfunction</td>
<td>Symposium (2:00 p.m.-3:30 p.m.) The Heart and Type 2 Diabetes</td>
<td>Symposium The Future Is Here—New Technologies in Islet Biology</td>
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<tr>
<td>6:30 p.m.-8:30 p.m.</td>
<td>ADA Networking Reception</td>
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## DAY-AT-A-GLANCE SCHEDULE
### SATURDAY, JUNE 8

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Topic</th>
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<tbody>
<tr>
<td>8:00 a.m.-10:00 a.m.</td>
<td><strong>Symposium</strong> The Big Picture on the Diabetic Foot</td>
<td>ADA Education Recognition Program Symposium—Expanding Diabetes Self-Management Education and Support Throughout a Larger Health Care Organization to Improve Pay-for-Performance Metrics</td>
</tr>
<tr>
<td>8:00 a.m.-10:00 a.m.</td>
<td><strong>Oral Presentations</strong></td>
<td>ADA Nutrition Therapy for Adults with Diabetes—2019 Consensus Paper</td>
</tr>
<tr>
<td>8:00 a.m.-10:00 a.m.</td>
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<td>ADA Diabetes Care Symposium—Current Challenges and Opportunities in Cardiovascular Epidemiology</td>
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<tr>
<td>10:15 a.m.-11:15 a.m.</td>
<td><strong>President, Health Care &amp; Education Address and Outstanding Educator in Diabetes Award Lecture</strong></td>
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<tr>
<td>11:30 a.m.-12:30 p.m.</td>
<td><strong>Professional Interest Group Discussion</strong> Primary Care’s Guide to Charcot Arthropathy</td>
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<tr>
<td>11:30 a.m.-12:30 p.m.</td>
<td></td>
<td>Exercise in the News—Fact, Fiction, or Fad? Advancing Nutrition Therapy—Partnering Strategies to Overcome Clinical Inertia</td>
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<tr>
<td>11:30 a.m.-12:30 p.m.</td>
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<td>PRIDE—Clinical Centers and Programs</td>
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<tr>
<td>11:30 a.m.-1:30 p.m.</td>
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<td>General Poster Session</td>
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<tr>
<td>11:30 a.m.-1:30 p.m.</td>
<td><strong>Moderated Poster Discussions</strong></td>
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<tr>
<td>11:30 a.m.-1:30 p.m.</td>
<td></td>
<td>ePoster Theater Sessions</td>
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**Registration Hours:** 7:00 a.m.-6:30 p.m.  
**Shop Diabetes Store Hours:** 7:30 a.m.-6:15 p.m.  
**Exhibit Hall Hours:** 10:00 a.m.-4:00 p.m.  
**Poster Hall Hours:** 10:00 a.m.-6:00 p.m.
<table>
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<tr>
<td>1:45 p.m.-3:45 p.m.</td>
<td>Symposium Cardiovascular and Renal Protection in Diabetes—Emphasis on SGLT2 Inhibitors and GLP-1 Receptor Agonists</td>
<td>Oral Presentations Roger Pecoraro Award Lecture</td>
<td>Symposium Making a Difference in Five Minutes—Interventions in Diabetes for Anyone (With Richard R. Rubin Award Lecture)</td>
<td>Current Issues (1:45 p.m.-2:40 p.m.) Challenging the Importance of Hypoglycemia in Type 2 Diabetes—Serious or Just Hype? (2:45 p.m.-3:45 p.m.) SGLT-Inhibitor Adjunctive Therapy in Type 1 Diabetes Mellitus—Is It Worth It?</td>
<td>Symposium Precision Medicine in Diabetes Mellitus Oral Presentations</td>
<td>Oral Presentations</td>
<td>Symposium Nonalcoholic Steatohepatitis (NASH)—The Overlooked Complication of Type 2 Diabetes Oral Presentations</td>
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<tr>
<td>4:00 p.m.-6:00 p.m.</td>
<td>Symposium Modifiers of Cardiovascular Outcomes in Type 1 and Type 2 Diabetes Oral Presentations</td>
<td>Symposium PREVIEW Study Results—Prevention of Diabetes through Lifestyle Intervention and Population Studies Around the World Diabetes Management and Education for Special Populations</td>
<td>Current Issues (4:00 p.m.-4:55 p.m.) What Are the Contributions of the Evolving Real-World Evidence? (5:00 p.m.-6:00 p.m.) Choosing Evidence-Based Therapy for Type 2 Diabetes Mellitus with Cardiovascular Disease</td>
<td>Symposium Diabetes in India and the South Asian Diaspora—The Tsunami Is Here</td>
<td>Current Issues Indication for Pancreas Transplantation in the Era of Glucose Sensor and Insulin Pump</td>
<td>Oral Presentations</td>
<td>Symposium Is Intermuscular Adipose Tissue (IMAT) a Friend or a Foe to Metabolic Health?</td>
<td>Symposium Joint ADA/EASD Symposium—From Genome-Wide Association Studies (GWAS) to Functional Impact in the Beta Cell</td>
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## DAY-AT-A-GLANCE SCHEDULE
### SUNDAY, JUNE 9—WEAR RED DAY

<table>
<thead>
<tr>
<th>Time</th>
<th>Acute and Chronic Complications</th>
<th>Behavioral Medicine, Clinical Nutrition, Education, and Exercise</th>
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<tr>
<td>8:00 a.m.-10:00 a.m.</td>
<td><strong>Symposia</strong></td>
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<td><strong>Symposia</strong></td>
<td>Oral Presentations</td>
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<td>Symposium</td>
<td>Oral Presentations</td>
<td><strong>Symposia</strong></td>
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<td></td>
<td>What You Absolutely Need to Know about Diabetic Neuropathies to Apply Personalized Care to Your Patients in 2019</td>
<td>Providing Options—Using a Low-Carbohydrate or Very Low-Carbohydrate Diet with Adults with Type 1 Diabetes, Type 2 Diabetes, or Prediabetes</td>
<td>Making Insulin Affordable</td>
<td>Oral Presentations</td>
<td>Symposium Circadian Effects</td>
<td>Making Insulin Affordable</td>
<td>Oral Presentations</td>
<td>The Resilient Beta Cell in Type 2 Diabetes ADA Diabetes Symposium—The Alpha Cell in Full Bloom—Evidence for an Expanded Role in Metabolic Regulation</td>
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<td>Joint ADA/ASN Symposium—Cardiovascular and Renal Protection in Diabetes—Beyond SGLT2 Inhibitors and GLP-1 Receptor Agonists</td>
<td>NDEP Symposium—How Do We Focus on Consensus Rather than Controversy? Guiding Principles for the Care of People with or at Risk for Diabetes</td>
<td>TrialNet—New Therapeutic Approaches and Insights for Type 1 Diabetes</td>
<td>Oral Presentations</td>
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<tr>
<td>10:15 a.m.-11:45 a.m.</td>
<td>President, Medicine &amp; Science Address and Banting Medal for Scientific Achievement</td>
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<tr>
<td>12:00 p.m.-1:00 p.m.</td>
<td><strong>Professional Interest Group Discussion</strong></td>
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<td><strong>Mini-Symposium</strong></td>
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<td>Why Is Heart Failure Still an Underappreciated Complication of Diabetes?</td>
<td>The Emotional Toll of Diabetes Complications—What Have We Done for Them Lately? Improving Health-Related Information Retention for Diabetes Self-Management Education and Support (DSMES)</td>
<td>Diabetes Technology Use in Schools, Camps, and Emergency Rooms</td>
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<td>Results and Comparisons from the RISE Clinical Trial—Adult Medication Study</td>
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<td>12:00 p.m.-1:00 p.m.</td>
<td>General Poster Session/Moderated Poster Discussions</td>
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<td>12:00 p.m.-1:00 p.m.</td>
<td>ePoster Theater Sessions</td>
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<td>1:00 p.m.-2:00 p.m.</td>
<td>Session Break (Take this opportunity to visit the Exhibit and Poster Halls)</td>
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**Day-at-a-Glance Schedule**  
**Sunday, June 9—Wear Red Day (continued)**

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| 2:15 p.m.-4:15 p.m. | **Symposium** Common Practices That Do Not Make Sense—Dilemmas in Diabetic Foot Management  
**Oral Presentations** | **Symposium** Extending Our Reach—Alternative Delivery Approaches for Psychosocial Care in Diabetes  
**An Exercise Challenge—How Diabetes Impacts the Health Benefits of Exercise Training** | **Symposium** Which Benefit Design and Behavioral Economic Interventions Can Be Used to Facilitate Diabetes Prevention?  
(2:15 p.m.-3:10 p.m.)  
**Medication Adherence—What You Don’t Know Will Definitely Hurt You**  
(3:15 p.m.-4:15 p.m.)  
**Too Many Patients, Too Little Time—Streamlining Practice to Care for the Patient with Diabetes DECLARE-TIMI 58 Trial** | **Symposium** Overlap between Autoimmune Diabetes of the Adult and Type 2 Diabetes—Current Knowledge and Clinical Implications | **Oral Presentations** | **Symposium** The Artificial Pancreas in 2019—First Reports of New, Large-Scale Trials and the Path Forward | **Oral Presentations** |
| 4:30 p.m.-6:30 p.m. | **Symposium** Hypoglycemia in Special Circumstances  
**Oral Presentations**  
Once-Weekly Dulaglutide and Major Cardiovascular Events—Results of the REWIND Trial | **Symposium** Maternal Effects on Offspring Cognitive and Neurodevelopment  
(4:30 p.m.-5:25 p.m.)  
**On the Road to Automated Insulin Delivery (AID)**  
**Current Issues**  
(5:30 p.m.-6:30 p.m.)  
**Should Advanced Diabetes Technology Be Used in Older Adults?**  
**Oral Presentations** | **Symposium** Screening Populations for Genetic Risk of Diabetes and Its Complications—Where Are We Now? | **Oral Presentations** | **Symposium** mTOR Signaling in Cellular and Systemic Metabolism | **Symposium** How Does Neuroscience Inform Our Care of Patients with Obesity?  
**Oral Presentations** | **Symposium** The Excited Beta Cell—Novel Insights into Hormone Secretion |
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| 8:00 a.m.-10:00 a.m. | Oral Presentations
- Edwin Bierman Award Lecture
- Acute and Chronic Complications (Symposia)
  - Little Kids with Diabetes — Approaches to Care Across Nutrition, Eating, and Technology
  - Taking a Stand (or Walk/Run/Lift) for Better Health — Improving Glycemic Management with Physical Activity
- Behavioral Medicine, Clinical Nutrition, Education, and Exercise (Symposia)
  - Current Issues (8:00 a.m.-8:55 a.m.)
    - Glycemic Goals and Overtreatment — What’s Driving the Debate?
  - Oral Presentations

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| 10:10 a.m.-11:45 a.m. | National Scientific & Health Care Achievement Awards Presentation and Outstanding Scientific Achievement Award Lecture

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| 12:00 p.m.-1:00 p.m. | Professional Interest Group Discussions
- Dilemmas with Medical Devices — Right Device, Right Person, Right Place
- Improving Transitions in Diabetes Care
- All Pregnant Women with Gestational Diabetes or Preexisting Diabetes Should Be Induced by 38 Weeks
- Professional Interest Group Discussion
- New Insights and Remaining Challenges in Diabetes Management and Complications
- Professional Interest Group Discussion
- Regulatory T-Cells Expressing Type 1 Diabetes-Reactive T-Cell Receptors and Chimeric Antigen Receptors to Promote Immune Tolerance

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| 12:00 p.m.-1:00 p.m. | General Poster Session/Moderated Poster Discussions

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| 12:00 p.m.-1:00 p.m. | ePoster Theater Sessions

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<td>4:30 p.m.-6:30 p.m.</td>
<td>Symposium: Beyond Anti-VEGF Therapy—New Approaches in Diabetic Retinopathy Clinical Trials</td>
<td>Oral Presentations</td>
<td>Symposium: The CAROLINA Trial—First Results of the Cardiovascular Outcomes Trial Comparing Linagliptin vs. Glimepiride</td>
<td>Symposium: Are Taxes the Solution to the Diabetes Epidemic?</td>
<td>Symposium: The Emerging Role of B Cells in Type 1 Diabetes</td>
<td>Symposium: Metabolites as Mediators</td>
<td>Oral Presentations</td>
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### DAY-AT-A-GLANCE SCHEDULE
#### TUESDAY, JUNE 11

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<td>7:30 a.m.-9:30 a.m.</td>
<td>Symposium Hypoglycemia in Type 2 Diabetes</td>
<td>Symposium Improving Quality of Care and Safety in the Inpatient Setting</td>
<td>Symposium CREDENCE and CARMELINA—Results from Two Major Clinical Trials in Kidney and Cardiovascular Disease in Diabetes</td>
<td>Symposium Genetics and Epigenetics of Diabetic Complications</td>
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<td>Symposium Beta-Cell Organelles Talk Amongst Themselves</td>
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<td>9:45 a.m.-11:45 a.m.</td>
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<td>Symposium Oral Semaglutide—The PIONEER Program Trials</td>
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SCIENTIFIC PROGRAM
FRIDAY, JUNE 7
11:30 a.m.-12:30 p.m.

- Opioids, Cannabinoids, and Other Potentially Addictive Therapies in Painful Diabetic Neuropathy
  Current Landscape and National Policies in Fighting Opioid Addiction—Relevance to the Treatment of Severe Painful Diabetic Neuropathy
  J. Robinson Singleton, MD
  When to Use and When NOT to Use These Agents in Painful Diabetic Neuropathy
  Karim Ladhia, MD, MSc
  Question and Discussion Period

- Hypoglycemia and Cardiovascular Events—A Causal Relationship?
  No, Hypoglycemia Is a Marker for Cardiovascular Frailty
  Thomas R. Pieber, MD
  Yes, Hypoglycemia Causes Cardiovascular Events
  David R. Matthews, DPhil, BM, BCh
  Question and Discussion Period

- Joint ADA/ACC Mini-Symposium—Cardiovascular Disease in Patients with Diabetes
  ADA and ACC—Opportunities for Synergy in the Care of Patients with Diabetes
  Sandeep Das, MD, MPH
  Controversies in Clinical Implementation—Should the Use of Novel Therapies Be Conditional on Background Metformin and Baseline AIC? Extended to Lower Risk Patients? Those with Chronic Kidney Disease?
  Jean-François Yale, MD, FRCPC
  Upcoming Trials in Patients with Diabetes, Cardiovascular Disease, and Related Disorders
  Darren K. McGuire, MD, MHSc

- The Vitamin D and Type 2 Diabetes (D2d) Study—A Multicenter Randomized Controlled Trial for Diabetes Prevention
  Rationale and Study Design
  Myrlene A. Staten, MD
  Recruitment, Retention, and Baseline Characteristics
  Erin S. Leblanc, MD, MPH
  Outcomes
  Anastassios G. Pittas, MD, MS
  Question and Discussion Period

- Patient, Health Care Provider, and Researcher Perspectives on Exercise as an Appropriate Tool for Managing Cardiovascular Complications of Diabetes
  Overview
  Jacob M. Haus, PhD
  Patient’s Perspective—What Exercise Worked and/or Didn’t Work for Me to Help Manage My Diabetes Complications
  TBD
  Health Care Provider’s Perspective—Principle vs. Practice in Successful Exercise Programming for Treating Diabetes Complications
  Jarett Berry, MD
  Researcher’s Perspective—Exercise Effects on Resolving the Underlying Mechanism That Drive Cardiovascular Complications Associated with Diabetes
  Judith G. Regensteiner, PhD
  Panel Discussion

- How Do We Break the Gestational Diabetes Mellitus-Type 2 Diabetes Mellitus—Obesity Cycle?
  Motivational Technology for Preventing Progression to Type 2 Diabetes Post-Gestational Diabetes Mellitus
  N. Wah Cheung, MBBS, FRACP, PhD
  Lifestyle Interventions in Preparation for Pregnancy
  Patrick Catalano, MD
  Interventions at the Health System Level
  Assiamira Ferrara, MD, PhD
  Question and Discussion Period

- Screening for Complications in Youth with Type 1 Diabetes—Are We On the Right Path?
  Screening for Complications in Youth with Type 1 Diabetes—Current Recommendations and Compliance
  Kim C. Donaghue, MBBS, PhD
  Cost Benefit of Pre-Type 1 Screening—Is It Time to Reevaluate Our Recommendations?
  Desmond Schatz, MD
  Question and Discussion Period

- Learning from Atypical Diabetes
  Atypical Diabetes—I Know It When I See It?
  Ashok Balasubramanyam, MD
  A New National Initiative to Capture and Characterize Rare and Atypical Forms of Diabetes
  Louis H. Philipson, MD, PhD
  Question and Discussion Period

- State-of-the-Art of Embryonic Stem Cells-Based Therapies in Type 1 Diabetes—The Road Ahead
  PD-L1 Genetic Overexpression in Hematopoietic Stem and Progenitor Cells Reverses Autoimmune Diabetes
  Paolo Fiorina, MD, PhD
  Beta-Cell Replacement Strategies for Type 1 Diabetes
  Timothy J. Kieffer, PhD
  Question and Discussion Period

- Metformin Action—Who Is Really in Charge?
  The Redox State in Metformin Action
  Gerald I. Shulman, MD, PhD, FACP, MACE
  The LKB1-AMPK Signaling Cascade
  Gregory R. Steinberg, PhD
  Question and Discussion Period

- Evolving Treatments for Obesity
  Endoscopic and Device Treatment Options
  Andrew C. Storm, MD
  Medications for Adolescent Obesity Treatment
  Daniel S. Hsia, MD
  Question and Discussion Period

Speakers and presentation titles are subject to change.
12:45 p.m.-1:45 p.m.

• Is Very Aggressive Lowering of LDL Cholesterol Worthwhile?
  - Pro
  - Steven E. Nissen, MD, MACC
  - Con
  - Rita F. Redberg, MD, MSc, FACC

Question and Discussion Period

• Translation of Cardiorenal Outcomes Trials into Other Populations with Diabetes
  - What Do Current Cardiovascular Outcomes Trials Mean for Patients with Type 1 Diabetes?
  - Katherine R. Tuttle, MD, FACP, FASN, FNKF
  - What Do Current Cardiovascular Outcomes Trials/Renal Trials Mean for Children/Adolescents with Obesity and Type 2 Diabetes?
  - Fida Bacha, MD, FAAP

Question and Discussion Period

• How to Help Your Patients and Your Bottom Line Using Novel Diabetic Retinopathy Diagnostic Tools
  - Early Treatment Diabetic Retinopathy Study Scale—Stages and Treatment—Implications for Health Care Providers
  - Karl G. Csaky, MD, PhD
  - Use of Artificial Intelligence Analysis of Diabetic Retina with Automated Computer Algorithms and Remote Reading Centers
  - Aaron Y. Lee, MD, MSCI

Question and Discussion Period

• I Can Tell When You Are Inflamed—Early Warning Systems in Diabetic Foot Self-Monitoring
  - It's All About Inflammation—Concepts of Temperature Monitoring for the Diabetic Foot
  - James S. Wrobel, DPM, MS
  - It's Smart Hosiery and Intelligent Textiles
  - Bijan Najafi, PhD

Intelligent Monitoring Systems—Smart Bath Mat
TBD

Question and Discussion Period

• Transition from Pediatric to Adult Diabetes Care—What's Really Working?
  - Lessons Learned—Young Adult Engagement for a Multidisciplinary Transition Clinic
  - Harpreet Nagra, PhD
  - Alternative Care Models for Transitioning Youth from Pediatric to Adult Diabetes Care
  - Jennifer Raymond, MD, MCR
  - Leveraging Appointments with Certified Diabetes Educators to Build Skills Towards Successful Transition
  - Maureen Monaghan, PhD

Question and Discussion Period

• Using Innovative Educational Strategies to Reach the Underserved—Community Health Workers, Peer Educators, and More
  - Community Health Workers vs. Online Diabetes Self-Management Education to Reach Low-Income Patients with Type 2 Diabetes Mellitus
  - Michele Heisler, MD, MPA
  - The Expanding Role of Peer Educators in Diabetes Self-Management Education
  - Kate Lorig, DrPH

Adapting a Diabetes Self-Management Program to Meet the Needs of a Real-World Setting with a Minority Population
Ninfa Peña-Purcell, PhD, MCHES
Panel Discussion

• Women's Interprofessional Network of the ADA (WIN ADA) Mini-Symposium—Using Tools and Strategies to Effectively Communicate Science
  - Do Not Fear—Social Media for Promoting Your Science
  - Joyce Lee, MD, MPH
  - Science Literacy
  - Krishana S. Sankar, BSc (Hons), PhDc

Question and Discussion Period

• Digital Apps for Diabetes Treatment and Prevention—Opportunities and Challenges
  - Regulatory and Public Policy Indications for Diabetes-Related Digital Apps
  - Courtney H. Lias, PhD
  - Physician Perspective
  - Steven Edelman, MD

Round Table Discussion
John R. Petrie, PhD, FRCP
Question and Discussion Period

• Joint ADA/ASMBS Mini-Symposium—Interventional Treatment of Diabetes—The Scientific and Clinical Evidence Regarding Metabolic Surgery and Implementation into Clinical Practice
  - Scientific Mechanisms of Diabetes Improvement by Manipulation of the GI Tract
  - David D'Alessio, MD
  - Effectiveness and Safety of Metabolic Surgery Interventions
  - David E. Cummings, MD

Update on the 2019 4th World Congress on Interventional Therapies for Type 2 Diabetes—Guidelines and Implementation Strategies
Philip R. Schauer, MD
Question and Discussion Period

• The Banting Exchange—The Almighty Adipocyte
  - The Adipocyte and Integrative Metabolism—Pathways of Energy Expenditure
  - Bruce M. Spiegelman, PhD
  - The Adipocyte as an Endocrine Organ—Adipokines Acting in Harmony
  - Philipp E. Scherer, PhD

Question and Discussion Period

• Current Issues—Rigor and Integrity in Diabetes Research
  - The Reproducibility Crisis—Realigning Incentives to Restore Scientific Integrity
  - Daniel J. Drucker, MD
  - Everything You Always Wanted to Know About Sex in Diabetes Research (but Were Afraid to Ask)
  - Franck Mauvais-Jarvis, MD, PhD

Question and Discussion Period
2:00 p.m.-3:30 p.m.
• The Heart and Type 2 Diabetes
  Myocardial Metabolism in Type 2 Diabetes Mellitus—What’s Gone Wrong?
  Gary Lopaschuk, PhD
  The Failing Heart—Metabolic Considerations
  Horng H. Chen, MD
  Management of Heart Failure in Patients with Diabetes
  Mariell Jessup, MD, FAHA
  Question and Discussion Period

2:00 p.m.-4:00 p.m.
• Diabetic Kidney Disease and Cardiovascular Disease in Diabetes
  Understanding the Pathophysiologic Link between Cardiovascular Disease and Diabetic Kidney Disease
  George Bakris, MD
  Epidemiology and Risk Factors for Cardiovascular Disease in Patients with Diabetic Kidney Disease
  Bjorn Eliasson, MD, PhD
  Heart Failure in Diabetes and Diabetic Kidney Disease—Pathways and Therapeutic Targets
  Amanda Vest, MBBS, MPH
  Improving Renal and Cardiovascular Outcomes in Patients with Diabetic Kidney Disease—What Have We Learned?
  Sankar D. Navaneethan, MD, MS, MPH
  Shared Decision Making When Choosing Pumps and Sensors
  Individualizing Insulin Pump Selection Patient-by-Patient
  Cari Berget, RN, MPH, CDE
  Motivating Patients to Wear Continuous Glucose Monitors
  Rebecca L. Longo, ACNP-BC, MSN, CDE
  Hybrid Closed-Loop Systems—What Have We Learned So Far?
  Samantha Lange, BS
  Paternal Programming—I’m Your Papa
  Evidence and Mechanisms for Paternal Epigenetic Regulation of Developmental Origins of Health and Disease
  Elvira Isganaitis, MD, MPH
  Obesity and Bariatric Surgery Drive Epigenetic Variation of Spermatozoa (Human)
  Ida Donkin, MD, PhD
  Preconception Diet or Exercise Intervention in Obese Fathers Normalizes Sperm microRNA Profile and Metabolic Syndrome in Female Offspring (Mouse)
  Nicole O. McPherson, PhD
  Paternal Long-Term Exercise Programs Offspring for Low Energy Expenditure and Increased Risk for Obesity in Mice
  P. Darrell Neufeld, PhD
  Cold-Induced Epigenetic Programming of the Sperm Enhances Brown Adipose Tissue Activity in the Offspring (Human and Mouse)
  Christian Wolfrum, PhD
  Question and Discussion Period

4:15 p.m.-6:15 p.m.
• Does When We Eat Matter? Effects of Timing on Weight, Metabolic Risk Factors, and Glycemic Control
  Intermittent Fasting and the Circadian Clock
  Courtney M. Peterson, PhD
  Metabolic Effects of Intermittent Compared with Continuous Energy Restriction
  Rona Antoni, PhD, RD
  Nutrient Sequencing in Type 2 Diabetes
  Alpana Shukla, MD
  Question and Discussion Period

2:00 p.m.-3:30 p.m.
• Novel Insights into the Role of the Adipocyte in Metabolic Dysfunction
  The Lipid Droplet and Lipolysis
  Tobias Walther, PhD
  Protein Kinase C Epsilon Action in Adipose Tissue Promotes Glucose Intolerance
  Carsten Schmitz-Peiffer, PhD
  Novel Regulators of Insulin’s Effect on Adipocyte Lipolysis
  Anthony W. Ferrante, Jr., MD, PhD
  Autophagy and Hydrolysis of Neutral Lipid
  Rajat Singh, MD, MBBS

2:00 p.m.-4:00 p.m.
• The Future Is Here—New Technologies in Islet Biology
  Islet-on-a-Chip—In Vitro Platforms for Studying Human Islet Physiology and Disease
  Cherie L. Stabler, PhD
  Pathology from the Atomic Scale On Up
  Garry Nolan, PhD
  Remote Cell Activation to Investigate Glucose Metabolism
  Sarah Stanley, MB, BCH, PhD
  Combined Single-Cell Functional and Transcriptomic Profiling of Human Islet Cells
  Patrick MacDonald, PhD

4:15 p.m.-6:15 p.m.
• Pains and Gains in Continuous Glucose Monitoring
  Continuous Glucose Monitoring Is Trending—Device Options and Utilization
  Roy W. Beck, MD, PhD
  Continuous Glucose Monitoring Outcomes and Indications
  Davida F. Kruger, MSN, APN-BC, BC-ADM

SAN FRANCISCO | JUNE 7-11, 2019 | #ADA2019
Speakers and presentation titles are subject to change.
Continuous Glucose Monitoring in Special Populations—Benefits and Barriers
Anne L. Peters, MD

Beyond A1C—Applying Uniform Metrics in the Clinical Use of Continuous Glucose Monitoring
Anders L. Carlson, MD

• New Concepts in the Molecular Mechanisms Leading to Type 1 Diabetes
  Single Cell Analysis of CD4 T-Cells Reveals Molecular Mechanisms of Disease
  Luc Teyton, MD, PhD
  Global Metabolic Disturbances Characterize Human Type 1 Diabetes
  Clayton E. Mathews, PhD
  Analysis of Self-Antigen Specificity of Islet-Infiltrating T-Cells from Human Donors with Type 1 Diabetes
  Sally C. Kent, PhD
• ADA Nutrition Therapy for Adults with Diabetes—2019 Consensus Paper
  Are Nutrition and Diabetes Education Interventions Effective in Improving Outcomes?
  Janice MacLeod, MA, RDN, CDE
  What’s the Best Eating Pattern for Adults with Diabetes?
  William S. Yancy, Jr., MD, MHS
  What’s the Role of Weight Loss in Overweight/Obese Adults with Diabetes?
  W. Timothy Garvey, MD
  What’s the Best Approach for Optimizing Glycemic Control? (Macronutrients and Insulin Dosing)
  Ka Hei Karen Lau, MS, RD, LDN, CDE
  What’s the Role of Nutrition in Diabetes Prevention?
  Christopher D. Gardner, PhD
  Translation to Practice
  Kelly M. Rawlings, MS
  Panel Discussion

• The Mighty Mitochondrion—Powering Up Metabolism from MENTSH to MOXI to Mitophagy
  State-of-the-Art Lecture—The Mighty Mitochondrion in the Regulation of Metabolic Health
  Orian Shirihai, MD, PhD
  MOTS—C-Mitochondrial-Encoded Regulator of Nuclear Gene Expression and Physical Capacity
  Changhan David Lee, PhD
  Mitochondria-Nuclear Communication in Homeostasis and Stress Response
  Valentina Perissi, PhD
  Mitochondrial Cross Talk—Should I Stay, or Should I Go?
  Luca Scorrano, MD, PhD

Oral Presentations
6:30 p.m.–8:30 p.m.
• ADA Networking Reception

SATURDAY, JUNE 8
8:00 a.m.–10:00 a.m.
• The Big Picture on the Diabetic Foot
  The Global Burden of the Diabetic Foot—Is It Getting Worse or Better?
  Frances Game, FRCP
  Diabetic Foot Guidelines—Are We Winning the War on Complications with Prevention?
  Edward B. Jude, MD, FRCP
  The Three Minute Diabetic Foot Exam—High Yield Findings That Stratify Risk
  Lawrence B. Harkless, DPM
  Telemedicine in Diabetic Foot Care—Is This the Next Generation of Outreach?
  Hilde Smith-Strøm, RN, MSc, PhD
• ADA Diabetes Care Symposium—Highlights of Diabetes Care—Three Hot Topics
  Introductory Comments
  Matthew C. Riddle, MD
  TCF7L2—A Genetic Window into the Course and Management of Type 1 and Type 2 Diabetes
  Struan F.A. Grant, PhD
  Controversies for Glucose Control Targets in Type 2 Diabetes—Exposing the Common Ground
  Philip Home, DM, DPhil
  “Profiles in Progress” Plaque Presentations
  Matthew C. Riddle, MD
  From Hong Kong Diabetes Register to RAMP-DM for Data-Driven Actions
  Juliana C.N. Chan, MD
• Joint ADA/AACC Symposium—Predicting and Diagnosing Gestational Diabetes Mellitus—Are We Making Progress?
  Gestational Diabetes Mellitus—What Is at Stake?
  Kim Boggess, MD
  We Should Use the IADPSG to Detect Gestational Diabetes Mellitus
  Florence M. Brown, MD
  We Should Use the Two-Step Method to Detect Gestational Diabetes Mellitus
  Amy M. Valent, DO
  Let’s Not Wait—Predicting Gestational Diabetes Mellitus in the First Trimester
  David B. Sacks, MB, ChB

Type 1 Diabetes in Long-Term Care Facilities—Are We Ready?
Jeffrey Halter, MD
Transitions of Care—Challenges and Solutions
Naushira Pandya, MD, CMD, FACP
End-of-Life Care
Trisha Lynette Dunning, PhD, FACP
Implementation of Diabetes Management in Long-Term Care Facilities
Diana Sherifali, PhD, RN, CDE
Question and Discussion Period

Goals and Strategies of Care—How Is It Different?
Hermes Florez, MD
Type 1 Diabetes in Long-Term Care Facilities—Are We Ready?
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Question and Discussion Period

Diabetes Management in Long-Term Care Facilities—Challenges and Solutions
Goals and Strategies of Care—How Is It Different?
Hermes Florez, MD
• Current Challenges and Opportunities in Cardiovascular Epidemiology
  Lessons Learned from Large Cohort Studies
  Veronique L. Roger, MD, MPH
  Challenges with the Use of Electronic Medical Record Data
  Ana M. Palacio, MD, MPH
  The Future of Cardiovascular Epidemiology Research
  Peter W.F. Wilson, MD

• Xenotransplantation—Prospects for Large-Scale Diabetes Cell Therapy
  Xenotransplantation Overview
  TBD
  Preclinical and Clinical Xenotransplantation of Porcine Islets in Diabetes
  Bernhard J. Hering, MD
  How CRISPR May Change the Fate of Xenotransplantation
  Linda Scobie, PhD

• Adaptive Stress Response Pathways in Insulin Response and Metabolism
  Hepatocytic Endoplasmic Reticulum Stress in Insulin Resistance
  Ira Tabas, MD, PhD
  Endoplasmic Reticulum Stress and Metabolism
  Randal Kaufman, PhD
  Inflammation in Diabetes
  Steven E. Shoelson, MD, PhD
  Effects of Nutrient and Energy Stress on Neuronal Regulation of Metabolism
  Kevin Williams, PhD
  p38 Signaling in Metabolic Homeostasis
  Guadalupe Sabio Buzo, DVM, PhD

• The Complicit Beta Cell in Type 1 Diabetes
  Crinosomes Maintain Beta-Cell Homeostasis but Promote Autoimmunity
  Emil R. Unanue, MD
  Beta-Cell Exosomes as Noninvasive Biomarkers of Type 1 Diabetes Pathogenesis
  Prashanth Vallabhajosyula, MD
  A Role for Beta-Cell Protein Tyrosine Phosphatases in the Pathogenesis of Type 1 Diabetes
  Esteban N. Gurzov, PhD
  Antigenic Peptides Are Generated through Beta-Cell Translational Errors
  Bart O. Roep, MD, PhD

Oral Presentations
10:15 a.m.-11:15 a.m.
• President, Health Care & Education Address
  Gretchen Youssef, MS, RD, CDE

• Outstanding Educator in Diabetes Award Lecture
  Virginia Valentine, APRN-CNS, BC-ADM, CDE, FAADE

11:30 a.m.-12:30 p.m.
• Primary Care’s Guide to Charcot Arthropathy
  What Is It, How Does It Happen, and Why Should I Care?
  Edward B. Jude, MD, FRCP
  Missed Diagnosis and Misdiagnosis—Consequence of Complacency
  Dane Wukich III, MD
  So, I Have Diagnosed a Patient with Charcot—What Should I Do?
  Brian M. Schmidt, DPM

• Exercise in the News—Fact, Fiction, or Fad?
  Introduction and Welcoming Remarks
  Jane E.B. Reusch, MD
  Wading Through Myths and Misunderstandings to Tell a Balanced Story about the Health Benefits of Exercise—A Journalist’s Perspective
  Gretchen Reynolds
  Balancing Scientific Sobriety vs. Media Buzz about the Health Benefits of Exercise—A Researcher’s Perspective
  Wendy M. Kohrt, PhD

• Advancing Nutrition Therapy—Partnering Strategies to Overcome Clinical Inertia
  The Provider Perspective—Working Solo or with a Team
  Jennifer Wyckoff, MD
  The Dietitian Perspective—Strengthening Partnerships
  Emily Weatherup, MS, RD, CDE

• PRIDE—Clinical Centers and Programs
  Deconstructing the Hospital Discharge Process for Patients with Diabetes
  Mary T. Korytkowski, MD
  Emergency Department Diabetes Rapid Referral Program—An Update from Two Boston Hospitals
  Marie E. McDonnell, MD
  Management of Hypoglycemia Risk during Transition of Electronic Medical Record Systems
  Ping H. Wang, MD
  Incidence and Treatment of Hypoglycemia in the Outpatient Setting
  Janice L. Gilden, MD, MS, FCP, FACE, FAAS

• Innovations in Islet Biology Research
  Welcome and Introduction
  Jeffery S. Tessem, PhD
  Seq and You Shall Find—Promises and Pitfalls of Single Cell Analysis
  Maike Sander, MD
  Sorting It All Out—Opportunities and Challenges of Using Novel Islet-Cell Surface Markers
  Alvin C. Powers, MD

• General Poster Session
11:30 a.m.-1:30 p.m.
• Moderated Poster Discussions/ePoster Theater Sessions
1:45 p.m.-2:40 p.m.
• Challenging the Importance of Hypoglycemia in Type 2 Diabetes—Serious or Just Hype?
  Hypoglycemia in Type 2 Diabetes Is a Real and Serious Problem
  Brian M. Frier, BSc (Hons), MD, FRCP (Edin)
  Is Hypoglycemia in Type 2 Diabetes Mostly Hype?
  Philip E. Cryer, MD
1:45 p.m.-3:45 p.m.

- **Cardiovascular and Renal Protection in Diabetes—Emphasis on SGLT2 Inhibitors and GLP-1 Receptor Agonists**
  - Renal Effects of GLP-1 Receptor Agonists—From Basic Mechanisms to Clinical Data
    - Julie A. Lovshin, MD, PhD
  - Cardiovascular Effects of GLP-1 Receptor Agonists—From Basic Mechanisms to Clinical Data
    - Jens J. Holst, MD, DMSc
  - Renal Effects of SGLT2 Inhibitors—From Basic Mechanisms to Clinical Data
    - David C. Wheeler, MD
    - Cardiovascular Effects of SGLT2 Inhibitors—From Basic Mechanisms to Clinical Data
    - Javed Butler, MD, MPH, MBA

- **Longitudinal Outcomes in Youth with Type 2 Diabetes—The TODAY2 Study**
  - Introduction to TODAY2
    - Kimberly Drews, PhD
  - Cardiovascular Complications and Outcomes
    - Lorraine E. Levitt Katz, MD
  - Renal Complications and Hypertension
    - Petter Bjornstad, MD
  - Retinopathy and Neuropathy
    - Neil H. White, MD
  - Pregnancy Outcomes
    - Jeannie B. Tryggestad, MD
  - Health Care Utilization
    - Ruth S. Weinstock, MD, PhD

- **Precision Medicine in Diabetes Mellitus**
  - The ADA Precision Medicine in Diabetes Initiative—An Overview
    - Paul W. Franks, PhD
  - Precision Medicine—What Is It, Precisely?
    - Huntington F. Willard, PhD
  - The Current State of Precision Medicine in Diabetes
    - Ewan Pearson, PhD
  - Emerging Precision in Phenotypic Diabetes Classification and Diagnosis
    - Tiinamaija Tuomi, MD, PhD
  - Emerging Precision in Genotypic Diabetes Classification and Diagnosis
    - Miriam Udler, MD, PhD
  - Beyond Genetics and Genomics—Integrating Omics into Precision Medicine in Diabetes
    - Mark Ibberson, PhD

2:45 p.m.-3:45 p.m.

- **Nonalcoholic Steatohepatitis (NASH)—The Overlooked Complication of Type 2 Diabetes**
  - Impact of NASH in Type 2 Diabetes—Fact or Fiction?
    - Should We Screen for NASH in Patients with Diabetes? What Is the Magnitude of the Problem/Implications on Cirrhosis, Hepatocellular Carcinoma, Cardiovascular Disease?
    - Elisabetta Bugianesi, MD, PhD
    - Eckhard Lammert, PhD
  - Diagnosis—What Can Imaging and Biomarkers Offer? A Practical Review of Current Approaches
    - Zobair Younossi, MD, MPH
  - Treatment—Are We There Yet? Current and Upcoming Treatment Approaches
    - Kenneth Cusi, MD

- **Oral Presentations**
  - **Roger Pecoraro Award Lecture**
    - 2:45 p.m.-3:45 p.m.

4:00 p.m.-4:55 p.m.

- **What Are the Contributions of the Evolving Real-World Evidence?**
  - Very Valuable
    - Mikhail N. Kosiborod, MD
  - Very Questionable
    - Hertzel C. Gerstein, MD, MSc, FRCPC

4:00 p.m.-4:55 p.m.

- **What Are the Contributions of the Evolving Real-World Evidence?**
  - Very Valuable
    - Mikhail N. Kosiborod, MD
  - Very Questionable
    - Hertzel C. Gerstein, MD, MSc, FRCPC
  - Rebuttal
    - Mikhail N. Kosiborod, MD
  - Rebuttal
    - Hertzel C. Gerstein, MD, MSc, FRCPC
  - Question and Discussion Period
4:00 p.m.-6:00 p.m.

- **Modifiers of Cardiovascular Outcomes in Type 1 and Type 2 Diabetes**
  Impact of Gender and Ethnicity on Cardiovascular Disease Outcomes
  Subodh Verma, MD, PhD, FRCSC
  Should Gestational Diabetes or Hypertensive Disease in Pregnancy Be Incorporated into Cardiovascular Disease Risk Engines?
  Jacinda M. Nicklas, MD, MPH, MA
  Epidemiology of Macrovascular Complications
  Trevor J. Orchard, MD, MMEDSci, FACE, FAHA
  Pathophysiologic Considerations of Cardiovascular Disease
  Myra A. Lipes, MD

- **PREVIEW Study Results—Prevention of Diabetes through Lifestyle Intervention and Population Studies Around the World**
  Prevention of Diabetes through Lifestyle Intervention—Results from the Multicenter PREVIEW Study
  Ian MacDonald, PhD
  Prevention of Diabetes through Lifestyle Intervention—Results from Population Studies
  Edith Feskens, PhD
  Dietary Restraint, Physical Activity, Sleep, Circadian Rhythm, and Stress in Relation to Prevention of Diabetes
  Magriet Westerterp-Plantenga, PhD
  The PREVIEW Study—Spotlights on Brain and Liver
  Mathijs Drummen, PhD

- **Diabetes Management and Education for Special Populations**
  Diabetes Self-Care Management in Patients Undergoing Dialysis
  Melissa Prest, DCN, RDN, CSR, LDN
  Concurrent Management of Diabetes and Cancer
  Amy Hiestand, MSN, RN, CDE
  The Challenge of Living with Diabetes for Low-Income Populations
  Brandi M. White, PhD, MPH
  Diabetes Self-Care in Prison—Fact or Fiction?
  Robin N. Hunter Buskey, DHSc, CDE, PA-C, CCHP

- **Joint ADA/Chinese Diabetes Society Symposium—Epidemiology and Risk Factors of Diabetes and Diabetic Complications**
  Prevalence of Diabetic Complications in China
  Weiping Jia, MD
  Cardiovascular Disease Risk Factors in Early-Onset Diabetic Patients
  Linong Ji, MD
  Effects of Diet and Nutritional Factors on Type 2 Diabetes in Chinese
  Xu Lin, MD, PhD
  Gestational Diabetes in China
  Gang Hu, MD, MPH, PhD, FAHA

- **Diabetes in India and the South Asian Diaspora—The Tsunami Is Here**
  Epidemiology and the State of Diabetes in India—Current Numbers, Socioeconomic Aspects, and Cultural Habits Across India—Focus on the ICMR-INDIA Study
  Ranjit Mohan Anjana, MD, PhD
  Diabetes in Youth in India—Understanding the Pathogenesis and Differential Diagnoses
  Nihal J. Thomas, MD
  Can We Modify the Alarming Clustering of Cardiovascular Risk Factors in India?
  K. Sreekumaran Nair, MD, PhD
  Diabetes and Cardiovascular Disease in South Asians in the United States
  Namratha R. Kandula, MD, MPH
  Use of Artificial Intelligence in Screening for Diabetic Retinopathy in India
  S.R. Aravind, MBBS, DNB, FRCP, DHA, FDRC, FRSSD1
  Type 1 Diabetes Mellitus—The Indian Experience
  K.M. Prasanna Kumar, MD, DM

- **Indication for Pancreas Transplantation in the Era of Glucose Sensor and Insulin Pump**
  Pro Pancreas
  Silke V. Niederhaus, MD
  Pro Artificial Pancreas
  Jessica R. Castle, MD
  Question and Discussion Period

- **Joint ADA/EASD Symposium—From Genome-Wide Association Studies (GWAS) to Functional Impact in the Beta Cell**
  Insights into Pancreatic Beta-Cell Function from Type 2 Diabetes GWAS
  Anna L. Gloyn, DPhil
  Type 2 Diabetes Genes and Beta Cell Function—STARD10, C2CD4B and ZnT8
  Guy A. Rutter, PhD
  Genomic Signatures in Human Beta Cells
  Michael L. Stitzel, PhD
  Lessons from Zebrafish—Insights from Models of Rare and Common Diabetes
  Norann A. Zaghloul, PhD

**Oral Presentations**

5:00 p.m.-6:00 p.m.

- **Choosing Evidence-Based Therapy for Type 2 Diabetes Mellitus with Cardiovascular Disease**
  Type 2 Diabetes Mellitus with “Established” Cardiovascular Disease—Why Would I First Add an SGLT2 Inhibitor to Metformin?
  Silvio E. Inzucchi, MD
  Type 2 Diabetes Mellitus with “Established” Cardiovascular Disease—Why Would I First Add a GLP-1 Receptor Agonist to Metformin?
  Tina Vilsboel, MD, DSMc
  Rebuttal
  Silvio E. Inzucchi, MD
  Rebuttal
  Tina Vilsboel, MD, DSMc
  Question and Discussion Period
**ADVANCE PROGRAM**

**SUNDAY, JUNE 9**

**WEAR RED DAY**

8:00 a.m.-10:00 a.m.

- **What You Absolutely Need to Know about Diabetic Neuropathies to Apply Personalized Care to Your Patients in 2019**
  - A Step-by-Step Approach for the Busy Clinician to Diagnose Distal Symmetrical Polynuropathy
  - Kara R. Mizokami-Stout, MD

- **How Should the Busy Clinicians Diagnose Autonomic Neuropathy and Why Should They?**
  - Rodica Pop-Busui, MD, PhD

- **Disease Modifying Therapies for Diabetic Neuropathy—Past, Present, and Future**
  - Mark A. Yorek, PhD

- **How Do Nutraceuticals (Vitamins, Medical Foods, etc.) Work in Diabetic Neuropathy?**
  - Nikolaos Papanas, MD, PhD

- **Joint ADA/ASN Symposium—Cardiovascular and Renal Protection in Diabetes—Beyond SGLT2 Inhibitors and GLP-1 Receptor Agonists**
  - Future Outlook for Diabetic Kidney Disease—Precision Medicine
  - Bringing Novel Agents into the Spotlight
  - Alice Y.Y. Cheng, MD, FRCPC

- **Emergence of Novel Anti-inflammatory Agents in the Age of CAN'TOS—New Avenues for Reducing Cardiorenal Risk in Patients with Diabetes**
  - Aruna Pradhan, MD, MPH, MSc

- **Emergence of Novel Mineralocorticoid Receptor Antagonists in the Age of FIGARO and FIDELIO**
  - Peter Rossing, MD, DMSc

- **Uric Acid Lowering Therapy and Cardiorenal Protection in the Setting of Diabetes and Chronic Kidney Disease**
  - Diana Jalal, MD

- **Providing Options—Using a Low-Carbohydrate or Very Low-Carbohydrate Diet with Adults with Type 1 Diabetes, Type 2 Diabetes, or Prediabetes**
  - Using a Low-Carbohydrate or Very Low-Carbohydrate Diet with Adults with Type 1 Diabetes
  - Patti Urbanski, MEd, RD, LD, CDE

- **Using a Low-Carbohydrate or Very Low-Carbohydrate Diet with Adults with Type 2 Diabetes**
  - Laura Salslow, PhD

- **Using a Low-Carbohydrate or Very Low-Carbohydrate Diet with Adults with Prediabetes**
  - Jeff Volek, PhD, RD

- **NDEP Symposium—How Do We Focus on Consensus Rather than Controversy? Guiding Principles for the Care of People with or at Risk for Diabetes**

- **Guiding Principles Through the Years**
  - M. Sue Kirkman, MD

- **Guiding Principles—Perspectives from the American Geriatric Society**
  - Carol M. Mangione, MD, MSPH, FACP

- **Guiding Principles—Perspectives from The Obesity Society**
  - Scott Kahan, MD, MPH, FTOS

- **Guiding Principles—A Family Medicine Perspective**
  - Jay H. Shubrook, DO

- **Guiding Principles—Closing Evidence Gaps—The CDC Perspective**

- **Guiding Principles—Closing Evidence Gaps—The NIDDK Perspective**
  - Griffin Rodgers, MD, MACP, FRCP (London)

- **Circadian Biological and Metabolic Syndrome**

- **Circadian Rhythm and the Metabolic Syndrome**
  - Joseph T. Bass, MD, PhD

- **Circadian Disruption and Bile Acid Signaling**
  - David D. Moore, PhD

- **Circadian Regulation of Diurnal Insulin Secretion Capacity**
  - Christine A. Doucette, PhD

- **Circadian Biology in Heart and Muscle**
  - Vijay K. Yechoor, MD

- **Circadian Rhythmicity of Skeletal Muscle Metabolism and its Role in Insulin Resistance in Humans**
  - Patrick Schrauwen, PhD

- **Making Insulin Affordable**

- **Why Is Insulin So Expensive? Understanding Insulin Supply Chain Dynamics**
  - William T. Cefalu, MD

- **Solutions from a Stakeholder’s Perspective—Pharmacy Benefit Manager**
  - Bill Head, JD, MA

- **Solutions from a Stakeholder’s Perspective—Health Plan**
  - Katie Allen, MPH

- **Solutions from a Stakeholder’s Perspective—Government (FDA) TBD**

- **Panel Discussion**

- **TrialNet—New Therapeutic Approaches and Insights for Type 1 Diabetes**

- **Innate Inflammation at Type 1 Diabetes Onset as a Predictor of Disease Progression and Therapeutic Responsiveness**
  - Susanne M. Cabrera, MD

- **Oral Insulin Effects on Autoantibodies**
  - Peter Gottlieb, MD

- **Liping Yu, MD**

- **Low Dose ATG and GCSF in New-Onset Type 1 Diabetes—Two-Year Clinical Trial Outcomes**
  - Michael J. Haller, MD

- **Anti-CD3 Prevention in Stage 2 Trial Results**
  - Kevan C. Herold, MD

- **TN20—Panel Discussion**

- **Question and Discussion Period**

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**79TH SCIENTIFIC SESSIONS**
• The Resilient Beta Cell in Type 2 Diabetes
  Beta-Cell Recovery and Remission from Type 2 Diabetes
  Michael E.J. Lean, MA, MB, BChir, MD, FRCP, FRCPS
  The Role of cAMP Signaling in Beta-Cell Composition
  Michelle E. Kimple, PhD
  Impacts of Insulin on the Beta Cell
  James D. Johnson, PhD
  Early Life Influences on Pancreatic Beta-Cell Mass and Function
  Brigid Gregg, MD

• ADA Diabetes Symposium—The Alpha Cell in Full Bloom—Evidence for an Expanded Role in Metabolic Regulation
  Regulation of Islet-Cell Secretion with an Alpha-Cell Focus
  Marcela Brissova, PhD
  The Cholinergic Phenotype of the Human Alpha Cell
  Alejandro Caicedo, PhD
  Glucagon Action in the Pharmacology of Diabetes
  Jonathan Campbell, PhD

Oral Presentations
10:15 a.m.-11:45 a.m.

• President, Medicine & Science Address
  Louis H. Philipson, MD, PhD, FACP

• Banting Medal for Scientific Achievement
  Stephen P. O’Rahilly, MD

12:00 p.m.-1:00 p.m.

• Why Is Heart Failure Still an Underappreciated Complication of Diabetes?
  Cardiovascular Complications of Diabetes
  Darren K. McGuire, MD, MHSc
  Question and Discussion Period

• The Emotional Toll of Diabetes Complications—What Have We Done for Them Lately?
  Four Adults with Diabetes
  Chris Aldred
  Matthew Heywood, MPH
  Kerri Sparling
  Ina Mendoza

• Improving Health-Related Information Retention for Diabetes Self-Management Education and Support (DSMES)
  The Science of Learning—Demystifying Memory, Retention, and Behavior Change
  Nuha Ali El Sayed, MD
  The Secrets to Delivering More Effective Education—Innovative Techniques to Drive Positive Outcomes
  Jennifer LeBlanc, BSN, RN, CDE
  Practical Application to Your DSMES
  Barb Schreiner, PhD, APRN, CDE, BC-ADM
  Question and Discussion Period

• Diabetes Technology Use in Schools, Camps, and Emergency Rooms
  Diabetes Technology in Schools
  Anastasia Albanese-O’Neill, PhD, APRN, CDE
  Diabetes Technology at Camps
  Lowell Schmeltz, MD, FACE
  Diabetes Technology in Emergency Rooms and Inpatient Settings
  Jamie Wood, MD

• Results and Comparisons from the RISE Clinical Trial—Adult Medication Study
  Rationale, Trial Design, Statistical Approach
  Sharon Edelstein, ScM
  Baseline Characteristics, Primary Outcomes
  Kieren J. Mather, MD
  Secondary Outcomes
  David A. Ehrmann, MD
  Adult vs. Youth Comparisons
  Steven E. Kahn, MB, ChB
  Panel Discussion
  Sonia Caprio, MD
  Thomas A. Buchanan, MD
  Steven E. Kahn, MB, ChB

• General Poster Session/Moderated Poster Discussions/ePoster Theater Sessions

1:00 p.m.-2:00 p.m.

• Session Break (Take this opportunity to visit the Exhibit and Poster Halls)

2:15 p.m.-3:00 p.m.

• Kelly West Award for Outstanding Achievement in Epidemiology Lecture
  Elizabeth Mayer-Davis, PhD, MSPH, RD

2:15 p.m.-3:10 p.m.

• Medication Adherence—What You Don’t Know Will Definitely Hurt You
  Who Is Not Taking What Medication and What Does It Cost?
  Current Status and Impact on Health and Cost
  Niteesh K. Choudhry, MD, PhD
  Measuring Medication Adherence from the Clinic to the Health System—How to Measure Adherence
  Kristin S. Alvarez, PharmD, BCPS
  Identifying and Overcoming Barriers to Medication Adherence through Effective Strategies, Tools, and Technologies
  TBD
  Question and Discussion Period

2:15 p.m.-4:15 p.m.

• Common Practices That Do Not Make Sense—Dilemmas in Diabetic Foot Management
  It Is Not What You Put on the Wound but What You Take Off—Offloading the Neuropathic Ulcer
  Paul J. Kim, DPM, MS
  The Culture of Culturing—What Are the Best Practices of Culturing a Wound or Infection?
  Chetan Jinadatha, MD, MPH
  Antibiotics Are for Infections, Not for Healing Wounds
  Kavita Bhavan, MD
  Need to Debride until It Bleeds—The Art and Science of Tissue Debridement
  Crystal Murray Holmes, DPM, CWSP
• Extending Our Reach—Alternative Delivery Approaches for Psychosocial Care in Diabetes
  Transdisciplinary Care for Teens with Diabetes
  Melissa A. Alderfer, PhD
  Innovative Collaborative Care Intervention Working with Accountable Care Organizations
  Paul S. Ciechanowski, MD, MPH
  Web Tech Patient-Centered Behavior Change Strategies in Diabetes
  Garry Welch, PhD
  Intervention Targeting Social Determinants of Health for Youth Experiencing Repeat Diabetic Ketoacidosis
  Diana Naranjo, PhD
  Videoconferencing for Medication Management in Persons with Diabetes and Mental Health Conditions
  Thomas E. Buckley, MPH, RPh, FNAP

Question and Discussion Period

• An Exercise Challenge—How Diabetes Impacts the Health Benefits of Exercise Training
  Is Impaired Blood Flow Responsible for Low Aerobic Capacity in Diabetes?
  Jane E.B. Reusch, MD
  Individual Variation in Blood Glucose Responses with Exercise in Diabetes
  Thomas P.J. Solomon, PhD
  The Variable Mitochondrial Response to Exercise with Diabetes
  Christopher G. Perry, PhD
  How Hyperglycemia Impacts Exercise-Induced Signal Transduction in Muscle
  Sarah J. Lessard, PhD

• Which Benefit Design and Behavioral Economic Interventions Can Be Used to Facilitate Diabetes Prevention?
  Innovations in Insurance Benefit Design to Prevent Diabetes
  Deneen Vojta, MD
  Behavioral Economic Strategies to Improve Patient Engagement
  Jeffrey T. Kullgren, MS, MD, MPH
  Using Behavioral Economics to Promote Healthy Food Choices
  Anne N. Thordike, MD, MPH
  How Can Diabetes Prevention Programs Be Made More Effective?
  Ronald T. Ackermann, MD, MPH

• DECLARE-TIMI 58 Trial
  DECLARE-TIMI 58 Trial Rationale, Design, Outcome Selection, Baseline Characteristics, and Effect on Cardiovascular Risk Factors
  Itamar Raz, MD
  Primary and Secondary Outcomes—Dapagliflozin Effect on the Cardiovascular System
  Stephen D. Wiviott, MD, FACC
  Question and Discussion Period
  Subgroup Analyses—Multiple Risk Factors vs. Established Cardiovascular Disease
  John P. Wilding, DM, FRCP
  Renal Outcomes
  Ofri Mosenzon, MD, MSc
  Question and Discussion Period
  Diabetes Safety and Side Effects
  Lawrence A. Leiter, MD, FRCPC, FACP, FAHA, FACC
  Discussion of SGLT2 Inhibitors in Context of New Guidelines
  Itamar Raz, MD
  Question and Discussion Period

• Overlap between Autoimmune Diabetes of the Adult and Type 2 Diabetes—Current Knowledge and Clinical Implications
  Autoimmune Diabetes in Adults—Current Evidence and Controversies
  Richard David Leslie, MD
  Immune Cells, Cytokines, and Beta-Cell Dysfunction in Autoimmune Diabetes and Type 2 Diabetes
  Marc Y. Donath, MD
  Islet-Specific T-Cell Responses in Phenotypic Type 2 Diabetic Patients
  Barbara Brooks-Worrell, PhD
  Question and Discussion Period

• The Artificial Pancreas in 2019—First Reports of New, Large-Scale Trials and the Path Forward
  The International Diabetes Closed-Loop (IDCL) Trial—Clinical Acceptance of the Artificial Pancreas
  Sue A. Brown, MD
  Multicenter Assessment of the Efficacy of Closed-Loop Insulin Therapy on the Control of Type 1 Diabetes in Prepubertal Children—Comparison between Nocturnal and 24-Hour Use During 18 Weeks of Home Use
  Eric Renard, MD, PhD

Meeting the Challenge of Post-Meal Glycemic Control—New Generation Insulins for the Closed-Loop System
  Eda Cengiz, MD, MHS
  Clinical Testing of Adaptation Strategies for a Personalized Artificial Pancreas
  Francis J. Doyle III, PhD

Oral Presentations

• Norbert Freinkel Award Lecture

3:15 p.m.-4:15 p.m.

• Too Many Patients, Too Little Time—Streamlining Practice to Care for the Patient with Diabetes
  Redesigning Practice to Improve Patient Satisfaction and Reducing No-Show Rates and Cancellations
  Emmanuel V. Dalavai, Exec. DBA, MTM, SCPM
  Maximizing the Effectiveness of the Patient Visit
  Uma Gunasekaran, MD
  Models to Meet the Challenge of Diabetes Supply and Demand
  Linda M. Siminerio, RN, PhD, CDE

Question and Discussion Period

4:30 p.m.-5:25 p.m.

• On the Road to Automated Insulin Delivery (AID)
  Performance Attributes of Pumps, Sensors, and Decision Support Required for AID
  Timothy S. Bailey, MD, FACE, FACP, CPI
  Recent and Future Advances in Artificial Pancreas Development
  Jennifer B. Green, MD

Question and Discussion Period

4:30 p.m.-6:00 p.m.

• Hypoglycemia in Special Circumstances
  Exercise
  Michael Riddell, PhD
  After Metabolic Surgery
  Mary-Elizabeth Patti, MD
  Inpatients
  Robert J. Rushakoff, MD
4:30 p.m.-6:30 p.m.

• Once-Weekly Dulaglutide and Major Cardiovascular Events—Results of the REWIND Trial
  Introduction and Research Question
  Gilles R. Dagenais, MD
  Background
  Rafael Diaz, MD
  Design and Baseline Characteristics and Secondary Outcomes Testing
  Matthew C. Riddle, MD
  Study Conduct (Adherence, Retention, A1C Effect, Weight, etc.)
  Helen Colhoun, MD
  Cardiovascular Outcomes
  Hertzel C. Gerstein, MD, MSc, FRCPC
  Safety
  Jeffrey L. Probstfield, MD
  Summary and Implications
  Matthew C. Riddle, MD
  Independent Commentary
  Sophia Zoungas, MBBS (Hons), PhD, FRACP

• Language Matters—Improving Communication in Diabetes Care
  Language Matters—A Health Care Professional’s Perspective
  Jane K. Dickinson, RN, PhD, CDE
  Language Matters—Perspectives from a Person Living with Diabetes
  Joe Solowiejczyk, RN, MSW, CDE
  The Role of the Clinician in Dismantling “Diabetes Stigma”
  Kevin Joiner, PhD, APRN, ANP-BC, CDE
  Strategies to Improve Communication between Patient and Provider
  Jane Speight, MSc, PhD, CPsychol, FBPsS

• Maternal Effects on Offspring Cognitive and Neurodevelopment
  Effect of Maternal Diabetes on Autism Spectrum Disorders and ADHD Risk in Offspring
  Epidemiology
  Anny Xiang, PhD
  Does Maternal Type 1 Diabetes Mellitus Lower Cognitive Function in Offspring?
  Peter Damm, MD, DMSc
  Maternal IL-6 and Cognitive Outcomes in Offspring (Human)
  Alice Graham, PhD
  Maternal Nutrition Effects on Behavioral and Cognitive Outcomes (Nonhuman Primate)
  Elinor L. Sullivan, PhD
  Question and Discussion Period

• Screening Populations for Genetic Risk of Diabetes and Its Complications—Where Are We Now?
  Identifying People at Risk for Type 1 Diabetes
  Annette-Gabriele Ziegler, MD
  TrialNet’s Approach to Identifying Early Stage Type 1 Diabetes
  Carla Greenbaum, MD
  Using Genetics to Distinguish Type 1 Diabetes, Type 2 Diabetes, and Monogenic Diabetes
  Kashyap A. Patel, MRCP, PhD
  Predicting Risk for Chronic Kidney Disease—The APO1 Story
  Barry I. Freedman, MD
  Question and Discussion Period

5:30 p.m.-6:30 p.m.

• Should Advanced Diabetes Technology Be Used in Older Adults?
  Technology Is Important for Older Adults
  Medha Munshi, MD, MBBS
  Technology Has Too Many Challenges for Older Adults
  Grazia Aleppo, MD
  Wireless Innovations for Seniors with Diabetes Mellitus—Primary Results of the WISDM Study
  Richard E. Pratley, MD
  Question and Discussion Period

8:00 a.m.-8:55 a.m.

• How Does Neuroscience Inform Our Care of Patients with Obesity?
  How Does Neuroscience Inform Treatment Strategies that Reduce the Salience of High-Calorie Food?
  Christian L. Roth, MD
  Differential Effects of Exercise on Brain Regulation of Appetite
  Marc Cornier, MD
  Gut-Brain Axis in the Treatment of Obesity—The Neuroscience of Bariatric Surgery
  Randy J. Seeley, PhD
  Obesity and the Child’s Brain—Bridging Science, Policy, and Practice
  Amanda Bruce, PhD
  Question and Discussion Period

• mTOR Signaling in Cellular and Systemic Metabolism
  Noncanonical mTOR Signaling in Brown Adipose Metabolism
  David A. Guertin, PhD
  Regulation of Lipogenesis by Multisite Phosphorylated S6K1
  Paul L. Fox, PhD
  Glutamine Sensing by mTORC1
  Jenna L. Jewell, PhD
  Hepatic Lipid Metabolism Downstream of mTORC1
  Paul M. Titchenell, PhD
  Cross Talk between the Innate Immune Kinase TBK1 and the Energy Sensing Kinase AMPK with mTOR
  Diane C. Finger, PhD
  Question and Discussion Period

• The Excited Beta Cell—Novel Insights into Hormone Secretion
  Two-Pore-Domain Potassium Channel Control of Islet Hormone Secretion and Glucose Homeostasis
  David Jacobson, PhD
  Ca2+ Microdomains Controlling Insulin Secretion
  Sebastian Barg, PhD
  Structural and Cellular Mechanisms Controlling KATP Channel Biogenesis and Trafficking in the Islet
  Show-Ling Shyng, PhD
  New Approaches for Understanding Beta-Cell Heterogeneity and Connectivity
  David Hodson, DVM, PhD

Oral Presentations

MONDAY, JUNE 10

8:00 a.m.-8:55 a.m.

• Glycemic Goals and Overtreatment—What’s Driving the Debate?
  Clinician’s Should Aim to Achieve an A1C between 7% and 8% in Most Patients—The ACP Perspective
  Timothy J. Wilt, MD, MPH
  Clinicians Should Aim to Achieve an A1C <7% in Many—The ADA Perspective
  David D’Alessio, MD
  Rebuttal
  Timothy J. Wilt, MD, MPH
  Rebuttal
  David D’Alessio, MD
  Question and Discussion Period

Speakers and presentation titles are subject to change.
8:00 a.m.-10:00 a.m.

- Little Kids with Diabetes—Approaches to Care Across Nutrition, Eating, and Technology
  - Continuous Glucose Monitor and Pumps for Young Children with Type 1 Diabetes
  - Nana-Hawa Yayah Jones, MD
  - Nutritional Challenges and Solutions for Families of Young Children with Diabetes
  - Carmel E. Smart, RD, PhD
  - Eating and Other Interventions for Young Children with Diabetes
  - Mark A. Clements, MD, PhD, CPI
  - Supporting Parents of Young Children with Type 1 Diabetes via a Crowdsourced Online Coping Intervention
  - Jessica Pierce, PhD
- Taking a Stand (or Walk/Run/Lift) for Better Health—Improving Glycemic Management with Physical Activity
  - Need a Break? The Metabolic Health Impact of Breaking Up Sedentary Time
  - Paddy C. Dempsey, PhD
  - How Much Is Enough? The Dose-Response Effects of Exercise
  - Robert Ross, PhD
  - High-Intensity Interval Training for Glycemic Management
  - Jenna B. Gillen, PhD
  - Benefits of Resistance Exercise as a Treatment for Diabetes
  - Kim M. Huffman, PhD
- The Impact of Payment Models on Diabetes Care
  - Single Payer Universal Health Care System
  - David C. Aron, MD
  - Pay for Performance
  - Devan Kansagara, MD, MCR
  - CMS State Innovation Model
  - Initiative Impacts on Diabetes
  - Hector Rodriguez, PhD, MPH
  - Bundled Payments for Diabetes Care
  - Jeroen N. Struijs, PhD, MSc
- Joint ADA/JDRF Symposium—Continuous Glucose Monitoring in Pediatric Diabetes—Ready for Prime Time?
  - Overview of Continuous Glucose Monitoring Technology and Options—How Far Have We Come?
  - David M. Maahs, MD, PhD
  - Strategies to Enhance New Continuous Glucose Monitoring Use in Early Childhood (SENCE)—Primary Study Results
  - Linda DiMeglio, MD, MPH
  - Continuous Glucose Monitoring Intervention in Teens and Young Adults (CITY)—Primary Study Results
  - Lori M. Laffel, MD, MPH
  - Use of Continuous Glucose Monitoring in Cystic Fibrosis—A Practical Approach to Early Dysglycemia Screening
  - Christine L. Chan, MD
- Organization of Liver Metabolism and Nonalcoholic Fatty Liver Disease
  - Where Should I Put This? Zonation/Compartmentalization of Metabolites in Liver
  - Julian Griffin, MA, DPhil
  - Breaking Fat—Hepatic Lipid Droplet Catabolism and Fatty Acid Trafficking
  - Douglas G. Mashek, PhD
  - Bad State of Repair—Hepatocellular Regeneration during Nonalcoholic Fatty Liver Disease
  - Anna Mae Diehl, MD
  - Genetic Architecture of Non-alcoholic Fatty Liver Disease
  - Elizabeth Speliotes, PhD
- Stimulating Beta-Cell Proliferation or Beta-Cell Function to Treat Diabetes?
  - Human Beta-Cell Regeneration for Diabetes—Moving from Impossible to Possible
  - Andrew F. Stewart, MD
  - Promoting Function to Treat Diabetes—Insulin Secretion
  - Susumu Seino, MD, DMSc
  - Beta-Cell Proliferation and Survival—New Connections through DNA Damage Pathways
  - Dawn B. Davis, MD, PhD
  - Promoting Function to Treat Diabetes—Glucose Sensing
  - Matthew J. Merrins, PhD

Oral Presentations
- Edwin Bierman Award Lecture

9:00 a.m.-10:00 a.m.

- Update on Diabetes Management in the Hospital
  - Managing Steroid-Induced Hyperglycemia
  - Felicia A. Mendelsohn Curanaj, MD
  - Managing Hyperglycemia during Inpatient Nutritional Support
  - Andjela T. Drincic, MD

Question and Discussion Period

10:10 a.m.-11:45 a.m.

- National Scientific & Health Care Achievement Awards Presentation
- Outstanding Scientific Achievement Award Lecture
  - Ismaa Sadaf Farooqi, PhD

12:00 p.m.-1:00 p.m.

- Dilemmas with Medical Devices—Right Device, Right Person, Right Place
  - Challenges in Selecting Diabetes Medical Devices
  - Jenise C. Wong, MD, PhD
  - Not the Right Device?
  - Viral N. Shah, MD
  - Every Day (and Not So Every Day) Challenges for Device Users
  - Joseph A. Aloï, MD
  - Panel Discussion
  - Anne L. Peters, MD
  - John R. Petrie, PhD, FRCP
  - Jenise C. Wong, MD, PhD
  - Viral N. Shah, MD
  - Joseph A. Aloï, MD
  - Question and Discussion Period

- Improving Transitions in Diabetes Care
  - Transitions to Adult Care for Youth with Diabetes
  - Katharine Garvey, MD, MPH
  - The Transition from Outpatient to Inpatient Health Care for Patients with Diabetes
  - Guillermo E. Umpierrez, MD, CDE, FACP, FACE
  - The Hospital to Home Transition of Care for Patients with Diabetes
  - Daniel J. Rubin, MD, MSc, FACE
• All Pregnant Women with Gestational Diabetes or Preexisting Diabetes Should Be Induced by 38 Weeks
  Welcome, Introduction, and Opening Poll
  Jennifer Wyckoff, MD
  Pro
  Chloe Zera, MD, MPH
  Con
  Howard Berger, MD
  Question and Discussion Period

• New Insights and Remaining Challenges in Diabetes Management and Complications
  Welcome and Michaela Modan Memorial Award Presentation
  Hsin-Chieh “Jessica” Yeh, PhD
  Recent Resurgence in Selected Complications in Young and Middle-Aged Adults
  Edward W. Gregg, PhD
  Challenges to Individualizing Diabetes Management in Older Adults
  Medha Munshi, MD
  Question and Discussion Period

• Regulatory T-Cells Expressing Type 1 Diabetes-Reactive T-Cell Receptors and Chimeric Antigen Receptors to Promote Immune Tolerance
  T-Cells Expressing Chimeric Antigen Receptor Promote Immune Tolerance
  Everett Meyer, MD, PhD
  Avidity and Bystander Suppressive Capacity of Human Regulatory T-Cells Expressing De Novo Autoimmune T-Cell Receptors in Type 1 Diabetes
  Wen-I Yeh, PhD

• General Poster Session/Moderated Poster Discussions/ePoster Theater Sessions

1:00 p.m.-2:00 p.m.
  Session Break (Take this opportunity to visit the Exhibit and Poster Halls)

2:15 p.m.-4:15 p.m.
• Controversies in the Evaluation and Management of Dyslipidemia in Patients with Diabetes
  How Should We Approach Dyslipidemia in Young Patients (<30 Years of Age) with Either Type 1 or Type 2 Diabetes?
  Amy Sanghavi Shah, MD, MS
  How Should We Approach Dyslipidemia in Elderly Diabetic Patients (>75 Years of Age) Without Cardiovascular Disease?
  Dan Streja, MD
  When LDLc Is at Goal, but Triglycerides Are Elevated, What Should We Do?
  Savitha Subramanian, MD
  Should We Treat Dyslipidemia in Patients with Diabetes and Severe Chronic Renal Failure (eGFR <30) and if so, How?
  Lisa Tannock, MD

• Making the Numbers Meaningful—The Value of Qualitative Research in Diabetes
  When Qualitative Findings Contradict Quantitative Data—A Look into Ethnic Minority and Immigrant Populations
  Tricia S. Tang, PhD, RPsych
  Out of the Mouth of Babes—How Qualitative Research Contributes to a Stronger Intervention Development
  Faisal Malik, MD, MSHS
  In Their Own Words—Qualitative Studies of Difficult Conversations about Diabetes
  Marilyn D. Ritholz, PhD
  Tech Overload? Qualitative Findings on the Uptake of Continuous Glucose Monitoring/Pumps in Diabetes Management
  Molly L. Tanenbaum, PhD

• Got Milk? Variability in Milk Composition and Effects on Offspring Health
  Maternal Obesity or Diabetes—Effects on Milk Composition and Offspring Outcomes
  David A. Fields, PhD
  Breast Milk, Microbiota, and Intestinal Immune Homeostasis
  W. Allan Walker, MD
  Restoring the Infant Gut Microbiome in Breastfed Infants over the First Year of Life
  Jennifer T. Smilowitz, PhD

FGF21 in Milk (Rodent and Human) Controls Neonatal Intestinal Function
  Francesc Villarroya, PhD
  Human Milk Oligosaccharides Protect Against the Development of Autoimmune Diabetes in NOD-Mice
  Belinda van’t Land, PhD
  Question and Discussion Period

• Joint ADA/ISPAD Symposium—Understanding Heterogeneity in Pediatric Diabetes—First Step to Improving Outcomes
  Types of Pediatric Diabetes—Is There a Classification That Works?
  Dana Dabelea, MD, PhD
  Heterogeneity in Type 1 Diabetes—Is It a Single Disease?
  Andrea Steck, MD
  Type 2 Diabetes Factors in the Etiology of Type 1 Diabetes—Implications for Prevention, Diagnosis, and Treatment
  Maria J. Redondo, MD, PhD, MPH
  Type 2 Diabetes Across the Lifespan—Who Is Worse Off, Youth or Adults?
  Silva Arslanian, MD

• Major Advances and Discoveries in Diabetes—The Year in Review
  Clinical Advancements in Diabetes over the Past Year
  Daniel J. Drucker, MD
  Major Discoveries in Diabetes over the Past Year
  Juleen R. Zierath, PhD

• Islet Transplantation Today and Tomorrow
  Updates on Clinical Islet Transplant Trials
  Kirstie K. Danielson, PhD
  Bio-synthetic Materials for Encapsulation/Bioengineering Approaches
  Omid Veiseh, PhD
  An Unlimited Islet Cell Source
  Nayara C. Leite, PhD
  Question and Discussion Period
• **Insulin Glucose Homeostasis and Cancer**
  
  **Regulation of Insulin Signaling and Cancer**
  Marcus Goncalves, MD, PhD  
  **Glucose Sensing and Cancer**
  Yuijiang Geno Shi, PhD  
  **Insulin, IGF1, and Metabolic Vulnerabilities in Lung Cancer**
  Nada Kalaany, PhD  
  **IGFs and Cancer**
  Valentine Macaulay, MD, PhD, FRCP

• **Will the Real Beta Cell Please Stand Up?**
  
  **Developmental Histories of Beta Cells Generate Functional and Proliferative Heterogeneity**
  Nikolay Ninov, PhD, BSc  
  **Heterogeneity in Beta-Cell Aging**
  Cristina Aguayo-Mazzucato, MD, PhD  
  **Heterogeneity in Beta-Cell Proliferation and Function**
  Maria L. Golson, PhD  
  **Beta-Cell Heterogeneity—A Neuronal Story**
  Sangeeta Dhawan, PhD

Oral Presentations

4:30 p.m.–6:30 p.m.

• **Beyond Anti-VEGF Therapy—New Approaches in Diabetic Retinopathy Clinical Trials**
  
  **Mechanisms in the Pathogenesis of Diabetic Retinopathy—A Synthesis of Perspective**
  Maria B. Grant, MD  
  **Tie2 Activation for Diabetic Retinopathy and Nephropathy—Razuprotfib (AKB-9778) Clinical Trial Results**
  Peter A. Campochiaro, MD  
  **Systemic and Retinal-Specific Effects of Fenofibrate in Retinopathy Outcomes of FIELD and ACCORD EYE**
  Emily Chew, MD  
  **Next Generation Intravitreal Combination Agents as an Alternative to Anti-VEGF Treatment**
  Jennifer I. Lim, MD

• **The CAROLINA Trial—First Results of the Cardiovascular Outcomes Trial Comparing Linagliptin vs. Glimepiride**
  
  **Introduction and Study Background**
  Julio Rosenstock, MD  
  **Study Design, Statistical Plan, and Baseline Characteristics**
  Mark Espeland, PhD  
  **Metabolic and Body Weight Outcomes**
  Steven E. Kahn, MB, ChB  
  **Cardiovascular, Mortality, and Hospitalization Outcomes**
  Nikolaus Marx, MD, FESC, FAHA  
  **Adverse Events and Hypoglycemia Analyses**
  Bernard Zinman, CM, MD  
  **Clinical Implications for the Cardiologist and Diabetologists**
  Darren K. McGuire, MD, MHSc  
  **Independent Commentator**
  Matthew C. Riddle, MD  
  **Final Remarks and Acknowledgements**
  Julio Rosenstock, MD

• **Are Taxes the Solution to the Diabetes Epidemic?**
  
  **Overview of Food Policy Levers for the Prevention of Obesity and Diabetes**
  Kelly D. Brownell, PhD  
  **The National Perspective—Progress Made and Future Measures**
  Margo Wootan, DSc  
  **The City Perspective—Soda Taxes in Berkeley, Philadelphia, and Beyond**
  Jennifer Falbe, ScD, MPH  
  **Epidemiology Meets Econometrics—Methods for Food Policy Impact Evaluation**
  Benjamin T. Allaire, MS

• **Defense of Elevated Body Fatness in Obesity—Pathogenesis and Treatment**
  
  **Theoretical and Evolutionary Perspectives on Body Fat Regulation**
  John Speakman, PhD, DSc  
  **Neuroscience Findings Relevant to Defense of Elevated Body Fat**
  Ellen Schur, MD, MS  
  **Is the Trajectory of Body Fatness “Set” In Utero?**
  Leanne Redman, PhD, FTOS  
  **Can Treatment Approaches Lower the Defended Level of Body Fat?**
  Cara B. Ebbeling, PhD

Oral Presentations

TUESDAY, JUNE 11

7:30 a.m.–9:30 a.m.

• **Hypoglycemia in Type 2 Diabetes**
  
  **Is Hypoglycemia in Type 2 Diabetes an Increasing Problem in Clinical Practice?**
  Kamlesh Khunti, MD, PhD, FRCGP, FRCP  
  **Clinical Consequences of Hypoglycemia in Older Adults—An Epidemiologic Perspective**
  Elizabeth Selvin, PhD, MPH
The Psychological Impact of Hypoglycemia in Type 2 Diabetes
Frans Pouwer, PhD
Adjunctive Therapies for Improving Outcomes of Hypoglycemia in Type 2 Diabetes
Sophia Zoungas, MBBS (Hons), PhD, FRACP

• Improving Quality of Care and Safety in the Inpatient Setting
  Human Error and At-Risk Behaviors with Insulin Therapy—A Cause for Continued Concern
  Susan Paparella, MSN, RN
  Implementing Protocols That Create a Culture of Safety
  Pamela C.E. Arnold, MSN, APRN, BC-ADM, CDE
  Using m-Health to Provide Innovative Diabetes Care in the Emergency Department
  Sanjay Arora, MD
  Developing Technological Tools for Inpatient Diabetes Clinician Education
  Sowmya Gururaj Setty, MBBS, MRCP (UK)

• CREDENCE and CARMELINA—Results from Two Major Clinical Trials in Kidney and Cardiovascular Disease in Diabetes
  Canagliflozin and Renal Events in Diabetes with Established Nephropathy Clinical Evaluation (CREDENCE)—Study Background and Methods
  Rajiv Agarwal, MD, MBBS, FASN, BRCU
  CREDENCE—Recap of Primary and Main Renal Results
  Meg Jardine, MD, PhD
  CREDENCE—Cardiovascular Outcomes Deep Dive
  Bruce Neal, MB, ChB, PhD
  CREDENCE—Cardiovascular and Renal Outcomes by Baseline Cardiovascular Disease
  Kenneth W. Mahaffey, MD, PhD
  CREDENCE—Interpretation
  Bernard Zinman, CM, MD
  Linagliptin Trial in Type 2 Diabetes Mellitus at High Cardiovascular Risk with Chronic Kidney Disease (CARMELINA)—Introduction, Rationale, and Study Design
  Steven E. Kahn, MB, ChB
  CARMELINA—Primary Cardiovascular Results
  Nikolaus Marx, MD, FESC, FAHA
  CARMELINA—Proven Safety with No Effect on Heart Failure
  Darren K. McGuire, MD, MHS
  CARMELINA—Renal Outcomes
  Robert D. Toto, MD
  CARMELINA—New Renal Subanalyses
  Christoph Wanner, MD
  CARMELINA—Implications for Management in Type 2 Diabetes Mellitus with Chronic Kidney Disease
  Mark E. Cooper, MBBS, PhD

• Genetics and Epigenetics of Diabetic Complications
  Diabetes Complications—An Overview
  Eoin Brennan, PhD
  Epigenetics in Nonalcoholic Fatty Liver Disease
  Renaud Dentin, PhD
  Epigenetics of Inflammation and Diabetic Vascular Complications
  Rama Natarajan, PhD
  Genetics of Diabetic Kidney Disease
  Niina Sandholm, DSc

• Adipose Tissue at the Single-Cell Level
  Introduction to Session
  C. Ronald Kahn, MD
  The Dynamics of Adipose Niche in Response to Environmental Challenges
  Yu-Hua Tseng, PhD
  Adipose Development and Expansion in Obesity
  Rana K. Gupta, PhD
  Deconstructing Adiogenic Niches Using Single Cell Expression Profiling
  James G. Granneman, PhD
  Resolving Adipose Stromal Cell Heterogeneity and Function
  Bart Deplancke, PhD
  Question and Discussion Period

• Go with Your Gut—Intestinal Regulation of Metabolism
  Bile Acid Regulation of Intestinal Lipid Sensing
  Rebecca Haeusler, PhD
  FGF21 and the Pancreas
  David J. Mangelsdorf, PhD
  Control of Feeding Behavior and Macronutrient Selection by Endocrine FGFs
  Karen K. Ryan, PhD
  Gut Microbes and Creeping Fat
  Suzanne Devkota, PhD

• Beta-Cell Organelles Talk Amongst Themselves
  The Role of Endoplasmic Reticulum-Associated Protein Degradation (ERAD) in Beta-Cell Dedifferentiation
  Ling Qi, PhD
  Pancreatic Beta-Cell Mitochondrial Dynamics and Mitophagy in Type 2 Diabetes and Beyond
  Manuel R. Benito, PhD, DPhil
  The Role of Autophagy in Maintenance of Pancreatic Beta-Cell Homeostasis
  Amelia K. Linnemann, PhD
  Insulin Granule Biogenesis and Trafficking
  Samuel B. Stephens, PhD

9:45 a.m.—11:45 a.m.

• Oral Semaglutide—The PIONEER Program Trials
  Introduction
  John B. Buse, MD, PhD
  Oral Semaglutide—How Well Does It Work and in What Settings?
  Vanita R. Aroda, MD
  Oral Semaglutide—How Does It Compare to Alternatives?
  Richard E. Pratley, MD
  PIONEER 6—Trial Design and Baseline Characteristics
  Stephen C. Bain, MA, MD, FRCP
  PIONEER 6—Cardiovascular Outcomes
  Mansoor Husain, MD, FRCPC
  PIONEER 6—Metabolic and Safety Outcomes
  Ofri Mosenzon, MD, MSc
  Summary
  John B. Buse, MD, PhD
  Independent Commentary
  Vivian Fonseca, MD
  Question and Discussion Period
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