The ASN Corporate Support Program recognizes supporters year round for their generous contributions to the Society. Through this program, supporters help ASN lead the fight against kidney disease. ASN gratefully acknowledges the following companies for their contributions in 2015.

**Diamond Level**

- Amgen
- Fresenius Medical Care
- Hospira
- Mallinckrodt Pharmaceuticals
- Oryx

**Platinum Level**

- Keryx
- Ophtho
- Sanofi Renal

**Gold Level**

- Alexion Pharmaceuticals, Inc.
- AstraZeneca
- Genentech, A Member of the Roche Group
- Merck
- ZS Pharma

**Silver Level**

- Baxter Healthcare Corporation
- Raptor Pharmaceuticals

**Bronze Level**

- Akebia Therapeutics, Inc.
- Rockwell Medical Inc.
- Shire

as of September 10, 2015
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*Program is subject to change.*

American Society of Nephrology (ASN), www.asn-online.org  
1510 H Street, NW, Suite 800, Washington, DC 20005  
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Future Meeting Dates

ASN Highlights International 2016

Berlin, Germany ........................................ January 30–31, 2016
Punta Cana, Dominican Republic ........ April 14–19, 2016 (Latin American Society of 
Nephrology and Hypertension)
Vienna, Austria .......................... May 21–24, 2016 (ERA-EDTA Congress)

Please check the ASN website for additional international locations. Please note that ASN will not offer Highlights in US locations in 2016.

ASN Board Review Course & Update 2016

July 30 – August 4, 2016
Fairmont Chicago at Millennium Park 
Chicago, Illinois

ASN Kidney Week 2016

November 15–20, 2016
McCormick Place™
Chicago, Illinois

Attention US Physicians

To ensure full compliance with the Open Payments (Physician Payments Sunshine Act), a provision of the Patient Protection and Affordable Care Act (PL 111-148), ASN reserves the right to provide information to applicable manufacturers and applicable GPOs about US physicians (and their spouses) who participate in selected ASN activities.

Section 6002 of the Affordable Care Act requires the establishment of a transparency program, now known as Open Payments. The program increases public awareness of financial relationships between drug and device manufacturers and certain health care providers. ASN makes reasonable attempts to collect and maintain the following information about its US physician members: 1) name and business address, 2) specialty, 3) National Provider Identification (NPI) number, and 4) state(s) professional license number and name of state(s) issuing license.

In the event that ASN receives payment from an applicable sponsor and the sponsor requests the reportable information from ASN, ASN will provide the information under the condition that the sponsor agrees to use the data only for reporting purposes covered under the Act and no other purpose.

US physicians have certain rights under this Act, and more information about these rights can be found at the resources listed below.

New for Kidney Week® 2015 and Mobile App

Translational Sessions
ASN introduces a new Annual Meeting session type to the program. Translational Sessions include scientific research that is intended to update and/or translate to clinical practice for the care of patients with kidney disease. This year’s topics include the following: CKD and nutrition, graft injury, drug repurposing, glomerular genomics, diabetes, HIV, kidney tumors, iron metabolism, transport physiology and electrolyte disorders, and potassium and blood pressure, as well as clinical trials and organ transplantation.

Board Certification and Recertification Forum
A special forum has been added to the Kidney Week schedule to offer ASN members with an opportunity to voice their concerns and opinions about the controversies in board certification and recertification. The forum will be chaired by ASN leadership and will be held on Friday, November 6, at 10:30 a.m.

Extended Poster Hours
Poster viewing will be extended to 9:30 a.m. – 4:30 p.m. in the exhibit hall on Thursday, November 5; Friday, November 6; and Saturday, November 7.

Meet-the-Experts Roundtables
ASN introduces an opportunity for small group interaction with several distinguished Kidney Week faculty. On Friday, November 6, and Saturday, November 7, from 12:45 p.m. to 1:45 p.m. in the Scientific Exposition Hall, annual meeting participants can share a table with an expert faculty. Tickets ($35 USD) will be available each morning to reserve a seat at one of the roundtables where you will share conversation with colleagues and a faculty expert. Tickets are sold on a first-come, first-served basis in the Registration area in Lobby D of the convention center and include a boxed lunch. All sales are final; no refunds or exchanges.

Kidney Week Mobile App
Navigate Kidney Week like a pro with the mobile app. You can:

- Create a custom agenda with sessions and events
- Browse speakers and bookmark sessions
- Locate meeting rooms from event listings
- Search for exhibitors, bookmark favorites, and navigate the exhibit hall
- Access social media to stay on top of the latest news on Kidney Week!

Search the App Store and Google Play for “ASN Kidney Week.”

Please note that this Onsite Program book will not include the following items: poster details (individual abstract titles and authors), conference services/travel information, ASN organizational events, and ancillary events. These items are included in the mobile app.

Kidney Week Mobile App support provided by Amgen.
## Schedule-at-a-Glance

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**BCSS - Basic/Clinical Science Sessions**

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**TS - Translational Sessions**

**SS - Special Sessions**

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Welcome to ASN Kidney Week® 2015

Found in Translation: Connecting Research and Patient Care

The American Society of Nephrology (ASN) proudly welcomes you to Kidney Week 2015, the world’s premier nephrology meeting. Kidney professionals from around the globe will discuss and debate the latest scientific and medical advances that will translate into improved kidney health.

At ASN Kidney Week, the world’s leading experts share new approaches to health care, research, education, and policy. Participants have opportunities to network with fellow specialists, advance their careers, learn best practices for treating and improving the lives of people with kidney disease, and collaborate with colleagues from around the world.

Leading the fight against kidney disease for nearly 50 years, ASN represents health professionals whose intellectual rigor, integrity, and ingenuity advance kidney research, treatment, and policy and improve the lives of millions of patients.

2015 Postgraduate Education Committee

Patrick H. Nachman, MD, FASN, Chair
Phyllis August, MD, MPH
Roy D. Bloom, MD
John M. Burkart, MD
Michael J. Choi, MD
John C. Edwards, MD, PhD
Sarah Faubel, MD
Areef Ishani, MD
Kamyar Kalantar-Zadeh, MD, PhD, MPH, FASN
Elaine S. Kamil, MD
Abhijit V. Kshirsagar, MD
Helen Liapis, MD
Charmaine E. Lok, MD, MPH
Thomas D. Nolin, PharmD, PhD, FASN
Mark A. Perazella, MD, FASN
Prabir Roy-Chaudhury, MD, PhD, FASN
B. Peter Sawaya, MD, FASN
William E. Smoyer, MD
Karin A. True, MD, FASN
Delphine S. Tuot, MD
Katherine R. Tuttle, MD, FASN
Suzanne Watnick, MD
Alexander S. Yevzlin, MD

2015 Program Committee

Lloyd G. Cantley, MD, FASN, Chair
Geetha Chalasani, MD
Jane S. Davis, APRN
Mark P. de Caestecker, MB BS, PhD
Iain A. Drummond, PhD
Linda F. Fried, MD, MPH, FASN
Masafumi Fukagawa, MD, PhD, FASN
John C. He, MD
Susan Hedayati, MD, FASN
Robert S. Hoover, Jr., MD, FASN
Tamara Isakova, MD
Shuta Ishibe, MD
Melanie S. Joy, PharmD, PhD, FASN
S. Ananth Karumanchi, MD
Sushrut S. Waikar, MD
Roy Zent, MD, PhD
General Educational Information

Purpose
• Learn basic and clinical science along with advances in clinical practice.
• Network with nephrology luminaries and colleagues from around the globe.
• Enjoy the camaraderie of friends and the culture of San Diego.

Learning Objectives
At the conclusion of this activity, participants will have increased knowledge in the field of nephrology and will be able to:
1. Identify recent discoveries in basic, translational, and clinical research in nephrology.
2. Construct new research questions based on updated scientific and clinical advances in nephrology-related disciplines.
3. Translate recent advances in the areas of general nephrology, dialysis, transplantation, and hypertension into new standards and approaches to clinical care of patients with kidney diseases and related disorders.

Target Audience
• Physicians
• PhDs and Other Researchers
• Medical and Other Trainees—including medical students, residents, graduate students, post-docs, and fellows
• Nurses and Nurse Practitioners
• Pharmacists
• Physician Assistants
• Other Health Care Professionals

Continuing Medical Education Credit
(Annual Meeting 2015, November 5–8)
The American Society of Nephrology (ASN) is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

ASN designates this live activity for a maximum of 31.0 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The American Academy of Physician Assistants accepts certificates of participation for educational activities certified for AMA PRA Category 1 Credit™ from organizations accredited by ACCME or a recognized state medical society. Physician assistants may receive a maximum of 31.0 hours of Category 1 credit for completing this program.

Participants should accurately estimate total CME hours spent at one or more of the following educational sessions: Basic/Clinical Science Sessions, Clinical Practice Sessions, Translational Sessions, Special Sessions, Educational Symposia, Oral Abstract Sessions, and Plenary Sessions.

Note: For Early Program credit, please refer to the syllabus book.
General Educational Information (cont.)

Continuing Nurse Education Credit
(Annual Meeting 2015, November 5–8)

The School of Nursing at the University of North Carolina at Chapel Hill is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center’s Commission on Accreditation.

The School of Nursing at the University of North Carolina at Chapel Hill designates this educational activity for a maximum of 29.5 ANCC hours.

Participants should only claim credit commensurate with the extent of their participation in the activity.

To successfully complete this learning activity, participants must complete the Annual Meeting evaluation at www.asn-online.org/cme by December 2, 2015. Instructions to print your certificate of completion will be available at this website.

*Note: CNE credit is not available for Early Programs (November 3–4).*

Continuing Pharmacy Education Credit
(Annual Meeting 2015, November 5–8)

The University of Minnesota, College of Pharmacy is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

This program is eligible for up to 29.5 contact hours of continuing pharmacy education credit.

Please complete the Annual Meeting evaluation at www.asn-online.org/cme by December 2, 2015. This will ensure that the CPE credit that you earn is added to your NAPB e-profile.

*Note: CPE credit is not available for Early Programs (November 3–4).*

Program Evaluation

ASN values each participant’s review and comments on the quality of ASN’s educational activities. Please complete the Annual Meeting evaluation at www.asn-online.org/cme by December 2, 2015. Instructions are available on the ASN website and onsite at the ASN Service Center in Lobby C of the convention center.

Certificates of Attendance for International Participants

For Early Programs, international participants can pick up printed Certificates of Attendance (not CME certificates for US participants) on Wednesday, November 4 at the programs.

For the Annual Meeting, international participants can access online Certificates of Attendance (not CME certificates for US participants) from November 6, 2015, through February 12, 2016, at https://show.jspargo.com/asn15/certificateofattendance. Certificates are only available if you have picked up your meeting materials or printed your meeting badge onsite. If you have questions, please visit the ASN Service Center in Lobby C of the convention center.
Disclosure Statement

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ASN requires all individuals in a position to control content for Kidney Week 2015 to complete disclosure forms. Responses are listed on the ASN website (www.asn-online.org/kidneyweek/faculty) and on the Kidney Week 2015 mobile app.

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Over 200 hours of presentations from Kidney Week 2015 Annual Meeting sessions will be made available in January 2016 to fully paid Annual Meeting participants at no additional cost. Sessions to be captured include the following: Plenary Sessions, Basic/Clinical Science Sessions, Clinical Practice Sessions, Translational Sessions, and Special Sessions.

Each captured session will include complete audio files and slides (with speaker permission) and will be displayed as streaming media to your computer, with searchable content and speaker information.

Fully paid participants will receive a voucher inside the meeting bag redeemable at one of the Kidney Week On-Demand supporters' exhibit booths. Exchange the voucher for an electronic access code, log in at www.asn-online.org/LearningCenter, and experience Kidney Week anytime, anyplace.

Note: CME, CNE, and CPE credits are not available for Kidney Week On-Demand.
Digital Pathology Room

You are invited to sign up (outside Room 21) for a hands-on review session of all the digital slides from the “Renal Biopsy: Clinical Correlations” session vignettes prior to Saturday, November 7, when the final diagnosis is discussed in depth and answers to the cases are distributed. Biopsy materials are available in the convention center from Thursday, November 5, through Saturday, November 7, with renal pathologists onsite to direct your study of the cases and to provide individual instruction. There is no fee to visit the Digital Pathology Room; however, space is limited and will be reserved a first-come, first-served basis.

Digital Pathology Room Hours

Thursday, November 5 ................................... 9:30 a.m. – 4:30 p.m.
Friday, November 6 ..................................... 9:30 a.m. – 4:30 p.m.
Saturday, November 7 .................................. 9:30 a.m. – 12:00 p.m.

Renal Biopsy: Clinical Correlations Session

Saturday, November 7 ................................... 4:30 p.m. – 6:30 p.m.

Renal pathologists and a clinical nephrologist discuss key histologic and clinical aspects of specific parenchymal renal diseases.

Overcrowding Policy

Overcrowding of meeting rooms can be a serious safety concern. ASN staff will monitor each meeting room to ensure a safe learning environment or social venue. When a room reaches capacity (based on facility limits and activity setup), ASN staff will shut down access to the room. No other participant/guest will be allowed to enter the room, regardless of the number of participants/guests who exit the room during the activity.

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Attendees are NOT permitted to take photographs at Kidney Week. Attendees are NOT permitted to record or stream audio/video at Kidney Week. These restrictions apply to, but are not limited to, sessions, posters, and exhibits. Individuals in violation may be asked to leave the area.

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Please note that this book contains poster sessions but not individual abstract titles and authors. For abstract titles, authors, and more, please refer to the Kidney Week Mobile App, the “Locate Me” Kiosks for Posters and Exhibits in the exposition halls, or the Abstract Supplement pdf at www.asn-online.org/KidneyWeek.
Abstract Category Chairs and Reviewers

ASN thanks the following experts for assistance with the abstract process.

Acute Kidney Injury

**AKI: Basic**
Samir M. Parikh, MD, *Category Chair*
Jonathan M. Barasch, MD, PhD
Patrick Cunningham, MD, FASN
Pierre C. Dagher, MD, FASN
Pinelopi P. Kapitsinou, MD
Gur P. Kaushal, PhD
Philip R. Mayeux, PhD
Hamid Rabb, MD, FASN
Satish P. Ramachandrarao, PhD
Prabhleen Singh, MD
Sundararaman Swaminathan, MD

**AKI: Basic Repair and Regeneration**
Manjeri A. Venkatachalam, MBBS, *Category Chair*
Rafael Kramann, MD, FASN
Babu J. Padanilam, PhD
Timothy A. Sutton, MD, PhD, FASN
Joel M. Weinberg, MD

**AKI: Clinical**
Gearoid M. McMahon, MbChB, *Category Chair*
Justin Miles Belcher, MD, PhD
Andrew Davenport, MD
Prasad Devarajan, MD
William Henry Fissell, MD
Stuart Goldstein, MD
Michael Heung, MD
Bertrand L. Jaber, MD, FASN
Michael Joannidis, MD
Jay L. Koyner, MD
Ravindra L. Mehta, MD, FASN
Patrick T. Murray, MD, FASN
Mark J. Sarnak, MD, FASN
Edward D. Siew, MD
Charuhas V. Thakar, MD

Cell Biology

**Cell Signaling/Oxidative Stress**
Zheng Dong, PhD, FASN, *Category Chair*
H. Thomas Lee, MD, PhD
Andreas Linkermann, MD, FASN
Peter M. Price, PhD
Shuxia Wang, MD, PhD

**Apoptosis, Proliferation, Autophagy, Cell Senescence, Cell Transformation**
Stuart J. Shankland, MD, FASN, *Category Chair*
Keiju Hiromura, MD, PhD
Leighton R. James, MD
Neal A. Paragas, PhD
James W. Scholey, MD

**Growth Factors, Chemokines, Autacoids**
H. William Schnaper, MD, *Category Chair*
Allison A. Eddy, MD, FASN
Leslie S. Gewin, MD
Sandeep K. Mallipattu, MD
Motoko Yanagita, MD

Chronic Kidney Disease

(Non-Dialysis)

**CKD: Risk Factors for Incidence and Progression**
Manjula Kurella Tamura, MD, MPH, *Category Chair*
Shuchi Anand, MD
Andrew S. Bomback, MD, MPH
Paul E. Drawz, MD
Ron T. Gansevoort, MD, PhD
Csaba P. Kovesdy, MD
Kunihiro Matsushita, MD, PhD
Afshin Parsa, MD, FASN
Carmen A. Peralta, MD
Mahboob Rahman, MD
Dena E. Rifkin, MD
Navdeep Tangri, MD, PhD

Bioengineering and Informatics

Karlnahs Endlich, MD, *Category Chair*
Mark A. Knepper, MD, PhD
Matthias Kretzler, MD
R. Tyler Miller, MD
Andrea Remuzzi, EngD
CKD: Estimating Equations, Incidence, Prevalence, Special Populations
Robert F. Reilly, MD, Category Chair
Daniel F. Balkovetz, MD, PhD
Michael Lopez Concepcion, MD
Susan T. Crowley, MD, FASN
Nishank Jain, MD, MPH, FASN
Deepak K. Malhotra, MD, PhD, FASN
Ranjani N. Moorthi, MD

CKD: Epidemiology, Outcomes: Cardiovascular
Susan L. Hogan, PhD, MPH, Category Chair
Khaled Abdel-Kader, MD
Amanda Hyre Anderson, PhD, MPH
George L. Bakris, MD, FASN
Muna T. Canales, MD
Preeti Chandra, MD
Gabriel Contreras, MD, MPH
Elizabeth W. Dehmer, MD, MPH
Mirela A. Dobre, MD
John P. Forman, MD
Michelle W. Krause, MD
John Paul Middleton, MD
Mark Mitsnefes, MD
Rajesh Mohandas, MD, MPH, FASN
Amy K. Mottl, MD
Suma Vupputuri, PhD, MPH

CKD: Epidemiology, Outcomes: Non-Cardiovascular
Philip Zager, MD, Category Chair
Milos N Budisavljevic, MD
Antonia Harford, MD
Manisha Jhamb, MD, MPH
Klemens B. Meyer, MD
Sriram Narsipur, MD, FASN
J. Kevin Tucker, MD

CKD: Clinical Trials
Peter N. Van Buren, MD, Category Chair
Srini Beddhu, MD
Jamie P. Dwyer, MD
Wajeh Y. Qunibi, MD
Kausik Umanath, MD

CKD: Cognitive Dysfunction, Depression, and Quality of Life
Daniel E. Weiner, MD, FASN, Category Chair
Michael J. Fischer, MD, MPH, FASN
Sarbjit Vanita Jassal, MD, PhD
Christine Liu, MD
Stephen L. Seliger, MD

CKD: Health Services, Disparities, and Prevention
Kirsten L. Johansen, MD, Category Chair
Deidra C. Crews, MD, MPH, FASN
Lorien S. Dalrymple, MD, MPH
Keith C. Norris, MD, PhD

Developmental Biology and Inherited Kidney Diseases

Developmental Biology
Norman D. Rosenblum, MD, Category Chair
Carlton M. Bates, MD
Samir S. El-Dahr, MD
Indra R. Gupta, MD
Jacqueline Ho, MD

Stem Cells
Leif Oxburgh, PhD, Category Chair
Amrita Das, PhD
Zubaida R. Saifudeen, PhD
Sunder Sims-Lucas, PhD
Ihor V. Yosypiv, MD

Pediatric Nephrology
Jordan A. Kreidberg, MD, PhD, Category Chair
Katherine M. Dell, MD
Bethany J. Foster, MD
Adrian S. Woolf, MD
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Diabetes
Diabetes Mellitus and Obesity: Basic-Experimental
Farhad R. Danesh, MD, FASN, Category Chair
Assaad Antoine Eid, PhD
Joan C. Krepsinsky, MD
Joshua H. Lipschutz, MD
Kevin J. McCarthy, PhD
Masaomi Nangaku, MD, PhD
Kumar Sharma, MD
Katalin Susztak, MD, PhD
Volker Vallon, MD
Fuad N. Ziyadeh, MD, FASN

Diabetes Mellitus and Obesity: Clinical
Holly J. Kramer, MD, Category Chair
Nisha Bansal, MD
Alex R. Chang, MD
Nora Franceschini, MD, MPH
Bhupesh Panwar, MBBS, MD
Ana C. Ricardo, MD
Sylvia E. Rosas, MD, FASN
Shani Shastri, MD

Dialysis
Standard Hemodialysis for ESRD
John T. Daugirdas, MD, FASN, Category Chair
Michael Allon, MD
Daniel W. Coyne, MD
Alan S. Kliger, MD
Peter Kotanko, MD, FASN
David J. Leehey, MD
Madhukar Misra, MD, FASN

Dialysis for AKI: Hemodialysis, CRRT, SLED, Others
Finnian R. Mc Causland, MbChB, FASN, Category Chair
David M. Charytan, MD
Kristin M. Corapi, MBChB
Paul M. Palevsky, MD, FASN
Ashita J. Tolwani, MD

Hemodialysis: Vascular Access
Prabir Roy-Chaudhury, MD, PhD, FASN, Category Chair
Arif Asif, MD, FASN
Randy I. Cooper, MD
Joris I. Rotmans, MD, PhD
Monnie Wasse, MD, FASN
Alexander S. Yevzlin, MD

Home and Frequent Dialysis
Christopher T. Chan, MD, Category Chair
John W. MacD. Agar, MBBS
Mark R. Marshall, MBChB, MPH
Robert P. Pauly, MD
Karthik K. Tennankore, MD

Dialysis: Anemia and Iron Metabolism
Tilman B. Drueke, MD, Category Chair
Kai-Uwe Eckardt, MD
Steven Fishbane, MD
Iain C. Macdougall, MD
Takeshi Nakanishi, MD

Dialysis: Epidemiology, Outcomes, and Clinical Trials: Cardiovascular
Steven M. Brunelli, MD, Category Chair
Tara I. Chang, MD, FASN
Jennifer E. Flythe, MD, MPH, FASN
Charles A. Herzog, MD
Connie Rhee, MD
Tariq Shafi, MBBS, FASN
Stephan M. Sozio, MD, FASN
Francesca Tentori, MD
Len A. Usvyat, PhD

Dialysis: Epidemiology, Outcomes, and Clinical Trials: Non-Cardiovascular
Joseph A. Vassalotti, MD, FASN, Category Chair
Timmy C. Lee, MD, MPH, FASN
Anita Mehrotra, MD
Madhav C. Menon, MD
Girish N. Nadkarni, MD
Samir S. Patel, MD
Julia J. Scialla, MD
Richard A. Sherman, MD
Joji E. Tokita, MD
Tushar J. Vachcharajani, MD, FASN
Jay B. Wish, MD
Peritoneal Dialysis
Joanne M. Bargman, MD, Category Chair
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Edwina A. Brown, MD
Rosilene M. Elias, MD, PhD
Annie-Claire Nadeau-Fredette, MD
Jeffrey Perl, MD
Anjali B. Saxena, MD, FASN
Isaac Teitelbaum, MD
Eric L. Wallace, MD
Angela Yee Moon Wang, MD, PhD

Dialysis: Palliative and End-of-Life Care
Alvin H. Moss, MD, Category Chair
Nwamaka Denise Eneanya, MD, MPH
Jean L. Holley, MD
Gregorio T. Obrador, MD, MPH
Jennifer S. Scherer, MD

Fluid, Electrolytes, and Acid-Base

Acid-Base: Basic
Nuria M. Pastor-Soler, MD, PhD, FASN, Category Chair
Dominique Eladari, MD, PhD
Nazih L. Nakhoul, PhD
Snezana Petrovic, MD, PhD, FASN
Tong Wang, MD

Water/Urea/Vasopressin, and Organic Solutes
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Mitsi A. Blount, PhD
Ewout J. Hoorn, MD, PhD
Bellamkonda K. Kishore, MD, PhD
Timo Rieg, MD

Na+, K+, and Cl- Basic
Pablo A. Ortiz, PhD, Category Chair
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Gerardo Gamba, MD, PhD
Benjamin S. Ko, MD
Kerim Mutig, DrMed

Fluid, Electrolyte, and Acid-Base Disorders
I. David Weiner, MD, Category Chair
Hassane Amlal, PhD
Kathleen S. Herling-Smith, PhD
Orson W. Moe, MD
Janos Peti-Peterdi, MD, PhD

Genetic Diseases of the Kidney

Cystic Kidney Diseases
Darren P. Wallace, PhD, Category Chair
Thomas J. Carroll, PhD
Marie C. Hogan, MBChB, MD, PhD, FASN
Michal Mrug, MD
Stephen C. Parnell, PhD
Pamela Vivian Tran, PhD
Thomas Weimbs, PhD
Oliver Wessely, PhD

Non-Cystic Mendelian Diseases
Corinne Antignac, MD, PhD, Category Chair
Rasheed A. Gbadegesin, MD
Fiona E. Karet, MD, PhD
Martin R. Pollak, MD
Simone Sanna-Cherchi, MD

Genetic Epidemiology and Other Genetic Studies of Common Kidney Diseases
Elena N. Levchenko, MD, Category Chair
Carsten Bergmann, MD
Nine V. Knoers, MD, PhD
Martin Konrad, MD
John Andrew Sayer, MBChB, PhD

Geriatric Nephrology
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Bjoerg Thorsteinsdottir, MD
Jocelyn E. Wiggins, MBChB
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Glomerular and Tubulointerstitial Disorders

Basic/Experimental Immunology
Martin H. Oberbarnscheidt, MD, PhD, Category Chair
Zhihong Liu, MD
Jonathan S. Maltzman, MD, PhD
Peter J. Nelson, MD, FASN
Natasha M. Rogers, MD, PhD

Basic/Experimental Inflammation
Dianne B. McKay, MD, Category Chair
Reza Elahimehr, MD
Matthew D. Griffin, MbChB
Sashi Kasimsetty, PhD
Christopher Y. Lu, MD, FASN

Basic/Experimental Pathology
Agnes B. Fogo, MD, Category Chair
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H. Terence Cook, MBBS
Vivette D’Agati, MD
J. Charles Jennette, MD
Gilbert W. Moeckel, MD, PhD, FASN
Marcus J. Moeller, MD
Michio Nagata, MD, PhD

Extracellular Matrix Biology, Fibrosis, Cell Adhesion
Ambra Pozzi, PhD, Category Chair
Dale R. Abrahamson, PhD
Dorin-Bogdan Borza, PhD
Dominic E. Cosgrove, PhD
Jeffrey H. Miner, PhD, FASN
Laura Perin, PhD

Cell Biology: Glomerular
Alessia Fornoni, MD, PhD, FASN, Category Chair
Kirk N. Campbell, MD
Christian Faul, PhD
Luigi Gnudi, MD, FASN
Mira Krendel, PhD
Sanna H. Lehtonen, PhD
Lijun Ma, MD, PhD
Deepak Nihalani, PhD
Lorenz Sellin, MD

Clinical/Diagnostic Renal Pathology and Lab Medicine
Samih H. Nasr, MD, Category Chair
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Christopher Patrick Larsen, MD
John C. Lieske, MD, FASN
Surya V. Seshan, MBBS
Banu Sis, MD
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Clinical Glomerular and Tubulointerstitial Disorders
David J. Salant, MD, Category Chair
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Craig E. Gordon, MD
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Hiroshi Kawachi, MD, PhD
Sethu M. Madhavan, MD
John F. O’Toole, MD
Madhumathi Rao, MD
Meghan E. Sise, MD
Rolf A. Stahl, MD

Hypertension

Hypertension: Basic
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William J. Welch, PhD
Roberto Zatz, MD, PhD

Hypertension: Clinical
Phyllis August, MD, MPH, Category Chair
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Johannes F. Mann, MD
Aldo J. Peixoto, MD, FASN
Sandra J. Taler, MD
Raymond R. Townsend, MD
Mineral Disease

Mineral Disease: Ca/Mg/PO4
Jessica B. Kendrick, MD, MPH,
Category Chair
Kathleen M. Hill Gallant, PhD
Ziad Massy, MD, PhD
Anthony A. Portale, MD
Sarah Seiler, MD

Mineral Disease: Vitamin D, PTH, FGF-23
Jason R. Stubbs, MD, Category Chair
Joachim H. Ix, MD, FASN
Markus Ketteler, MD
Moshe Levi, MD, FASN
Susan C. Schiavi, PhD
James B. Wetmore, MD

Mineral Disease: CKD-Bone
Marta Christov, MD, PhD, Category Chair
Mary B. Leonard, MD
Hartmut H. Malluche, MD
Rupal Mehta, MD
Stuart M. Sprague, DO, FASN

Mineral Disease: Nephrolithiasis
Eric N. Taylor, MD, Category Chair
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David S. Goldfarb, MD, FASN
Andrew D. Rule, MD

Nephrology Education
Educational Research
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Michael J. Choi, MD
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Karen M. Warburton, MD

Fellows Case Reports
Mark A. Perazella, MD, FASN,
Category Chair
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Teresa K. Chen, MD
Steven C. Cheng, MD
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Scott J. Gilbert, MD, FASN
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Albert Q. Lam, MD
Randy L. Luciano, MD, PhD
Laura J. Maursetter, DO
Divya Monga, MD
Suzanne M. Norby, MD, FASN
Meyeon Park, MD
Mandana Rastegar, MD
Roger A. Rodby, MD, FASN
Rudolph A. Rodriguez, MD
Jessica W. Weiss, MD
Sri G. Yarlagadda, MD
Bessie A. Young, MD, FASN

Nutrition, Inflammation, and Metabolism
Talat Alp Ikizler, MD, FASN,
Category Chair
Jie Dong
Allon N. Friedman, MD, FASN
Russ Price, PhD
Peter Stenvinkel, MD, PhD
Daniel Teta, MD, PhD

Patient Safety
Diana I. Jalal, MD, Category Chair
Harold A. Franch, MD
Anna Jeanette Jovanovich, MD
Roberto S. Kalil, MD
Abstract Category Chairs and Reviewers (cont.)

Pharmacokinetics (PK)/Pharmacodynamics (PD)/Pharmacogenomics
Amy Barton Pai, PharmD, FASN, Category Chair
Brian S. Decker, MD, PharmD
Michael T. Eadon, MD
Joanna Hudson, PharmD, FASN
Darius Mason, PharmD

Transplantation

Transplantation: Basic and Experimental
Xun-Rong Luo, MD, PhD, Category Chair
Mohammed Javeed Ansari, MD
Iris J. Lee, MD
Thangamani Muthukumar, MD
Nader Najafian, MD

Transplantation: Clinical and Translational
Sundaram Hariharan, MD, Category Chair
Enver Akalin, MD
Hatem Amer, MD, FASN
Suphamai Bunnapradist, MD
Aravind Cherukuri, MD, PhD
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John J. Friedewald, MD
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Ajay K. Israni, MD
Michelle A. Josephson, MD
Joseph Kim, MD, PhD
Aleksandra Kukla, MD
V. Ram Peddi, MD, FASN
Titte Srinivas, MD
Hani Wadei, MD, FASN
Alexander C. Wiseman, MD

Vascular Biology

Vascular Biology: Atherosclerosis, Inflammation, Endothelium
Steven D. Crowley, MD, Category Chair
Erika I. Boesen, PhD
Alejandro R. Chade, MD
Romer Andres Gonzalez-Villalobos, MD, PhD
Johannes Stegbauer, MD

Vascular Calcification
Antonio Bellasi, MD, Category Chair
Geoffrey A. Block, MD, FASN
Mario Cozzolino, MD, PhD
Donald A. Molony, MD
Rosa M.A. Moyses, MD, PhD
Marc G. Vervloet, MD, PhD

Vascular Biology: Blood and Lymphatic Development, Function, and Homeostasis
Susan E. Quaggin, MD, Category Chair
Marie Jeansson, PhD
Jing Jin, MD, PhD
Yoshiro Maezawa, MD, PhD
Jens Titze, MD
Top Oral Abstracts by Trainees

ASN is pleased to highlight the Top Oral Abstracts by young investigators and physicians-in-training as lead authors.

Acute Kidney Injury

TH-OR097 Peptidyl Arginine Deiminase-4 Exacerbates Ischemic Acute Kidney Injury by Finding NEMO–May Rabadi, Columbia University Medical Center. Thursday, November 5, 4:54 p.m., Room 6D

FR-OR100 Tubular Regeneration after Acute Kidney Injury Is Limited and Only Driven by Tubular Progenitors–Elena Lazzeri, University of Florence. Friday, November 6, 4:54 p.m., Room 1

SA-OR099 Evaluation of Novel Urine Biomarkers for Diagnosis of Subclinical Acute Tubular Necrosis–Dennis Moledina, Yale University. Saturday, November 7, 4:30 p.m., Room 6D

Cell Biology

SA-OR087 Roles of CCN2 and Caspase Activities in Tubular Epithelial Cells Involved in AKI Transition to CKD–Takeru Kusano, Saitama Medical University. Saturday, November 7, 6:06 p.m., Room 6F

Chronic Kidney Disease (Non-Dialysis)

TH-OR006 Biomarkers of Early Decline in Renal Function: A Translational Study in Type 2 Diabetes–Jennifer Xu, Case Western Reserve University. Thursday, November 5, 5:30 p.m., Room 8

TH-OR015 Risk Factors for Cognitive Impairment in Chronic Kidney Disease – The Brain in Kidney Disease Study–Elizabeth Bell, Minneapolis Medical Research Foundation. Thursday, November 5, 5:18 p.m., Room 6E

TH-OR122 Endogenous Klotho Is Expressed in Human Heart and May Be Associated with Fibrosis–Qinghua Liu, Brigham and Women’s Hospital, Harvard Medical School. Thursday, November 5, 5:54 p.m., Room 9

SA-OR005 Proton Pump Inhibitor Use Is Associated with Incident Chronic Kidney Disease–Benjamin Lazarus, Johns Hopkins University. Saturday, November 7, 5:18 p.m., Room 9

Developmental Biology and Inherited Kidney Diseases

TH-OR043 Pluripotent, Non-Tumorigenic, Human Muse Cells Integrate into Glomerulus to Recover Function in a Chronic Kidney Disease Mouse Model–Nao Uchida, Tohoku University School of Medicine. Thursday, November 5, 4:54 p.m., Room 23

FR-OR091 Oxygenation and Von Hippel-Lindau Regulate Nephron Progenitor Differentiation–Elina Mukherjee, University of Pittsburgh. Friday, November 6, 5:06 p.m., Room 9
Top Oral Abstracts by Trainees (cont.)

FR-OR094  ΔNp63 Progenitor Cells Pattern the Ureteric Bud Stem Cell Niche and Give Rise to ß-Intercalated Cells—Yuwen Li, Tulane University School of Medicine. Friday, November 6, 5:42 p.m., Room 9

Diabetes

TH-OR008  The Impact of Pre-ESRD Glycemic Status on Early Post-ESRD Mortality among U.S. Veterans: A Transition of Care in CKD Study—Connie Rhee, University of California Irvine. Thursday, November 5, 5:54 p.m., Room 8

FR-OR087  Targeted Proximal Tubule Injury Promotes Progression of Diabetic Kidney Disease in Akita Mice—Jae Hyung Chang, Columbia University Medical Center. Friday, November 6, 6:18 p.m., Room 8

Dialysis

TH-OR058  Serum Leptin, Pre-Existing Vascular Disease, and Arteriovenous Fistula Maturation Failure—Jwa-kyung Kim, Hallym University. Thursday, November 5, 4:30 p.m., Room 24

FR-OR034  Center-Specific Factors Associated with Peritonitis Risk—A Multi-Center Registry Analysis—Annie-Claire Nadeau-Fredette, Hopital Maisonneuve-Rosemont. Friday, November 6, 5:06 p.m., Room 26

SA-OR035  Abnormal Global Longitudinal Strain Is Associated with All-Cause Mortality in Hemodialysis Patients—Diana Chiu, University of Manchester. Saturday, November 7, 5:54 p.m., Room 24

Fluid, Electrolytes, and Acid-Base

TH-OR075  Regulation of the Apical Cotransporter NKCC2 by a Novel Kinase: TNIK—Paulo Caceres, Henry Ford Hospital. Thursday, November 5, 4:30 p.m., Room 2

TH-OR080  Generation and Analysis of Knock-In Mice Carrying Pseudohypoaldosteronism Type II-Causing Mutations in the Cullin 3 Gene—Yuya Araki, Tokyo Medical and Dental University. Thursday, November 5, 5:30 p.m., Room 2

FR-OR010  Small-Molecule Inhibitors of Pendrin (SLC26a4) Augment the Diuretic Action of Furosemide—Onur Cil, University of California San Francisco. Friday, November 6, 6:18 p.m., Room 6D

SA-OR116  ILK Is Important for Recycling of AQP2 and Its Subsequent Entry into the Exocytotic Pathway—Fahmy Mamuya, Massachusetts General Hospital and Harvard Medical School. Saturday, November 7, 5:54 p.m., Room 23
Genetic Diseases of the Kidney

TH-OR049  Smyd2 Synergistically Activates STAT3 and NF-κB and Represses p53 to Promote Cyst Growth—Xiaoyan Li, University of Kansas Medical Center. Thursday, November 5, 4:42 p.m., Room 7

FR-OR048  Mutations in TBX18 Cause Dominant Urinary Tract Malformations via Transcriptional Dysregulation of Ureter Development—Asaf Vivante, Children's Hospital, Harvard Medical School. Friday, November 6, 4:30 p.m., Room 7

Glomerular and Tubulointerstitial Disorders

TH-OR086  Kidney Disease Associated Variants of Apolipoprotein L1 Changes Conformational Dynamics of the C-Terminal Domain—Sethu Madhavan, MetroHealth Medical Center. Thursday, November 5, 4:42 p.m., Room 26

FR-OR059  B Cell-Intrinsic Interferon Gamma (IFNγ) Signals Promote B Cell Activation and the Development of Lupus Nephritis—Shaun Jackson, Seattle Children's Hospital. Friday, November 6, 4:42 p.m., Room 23

FR-OR062  Autoantibodies against Thrombospondin Type-1 Domain-Containing 7A Induce Membranous Nephropathy in Mice—Nicola Tomas, Universitätsklinikum Hamburg-Eppendorf. Friday, November 6, 5:18 p.m., Room 23

SA-OR045  Super-Resolution Microscopy Reveals the Formation of a Mat of Contractile Fibers as Part of the Podocyte Foot Process Effacement Phenomenon—Hani Suleiman, Washington University. Saturday, November 7, 4:30 p.m., Room 1

Hypertension

FR-OR046  Effect of Uric Acid Lowering on Ambulatory Blood Pressure: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial—Ciaran McMullan, Brigham and Women’s Hospital. Friday, November 6, 5:30 p.m., Room 25

SA-OR067  Nephron Specific Deletion of the Prorenin Receptor Modulates Blood Pressure and Urinary Na Excretion—Nirupama Ramkumar, University of Utah. Saturday, November 7, 4:54 p.m., Room 8

Mineral Disease

TH-OR113  Iron Status Affects FGF23 Production and Metabolism in Mice with Chronic Kidney Disease—Mark Hanudel, Mattel Children’s Hospital, UCLA. Thursday, November 5, 6:06 p.m., Room 6C

FR-OR022  Increase in Trabecular Bone Volume by Inhibition of GSK-3β in Uremic Mice—Narihito Tatsumoto, Kyushu University. Friday, November 6, 4:42 p.m., Room 24
Top Oral Abstracts by Trainees (cont.)

SA-OR077  Diet-Dependent Net Acid Load, Protein Intake, and Risk of Incident Kidney Stones—Pietro Manuel Ferraro, Columbus-Gemelli University Hospital, Catholic University of the Sacred Heart. Saturday, November 7, 5:30 p.m., Room 6E

Nutrition, Inflammation, and Metabolism
SA-OR094  Normal Weight with Central Obesity Is Associated with the Highest Risk of Coronary Artery Calcification in Chronic Kidney Disease Patients—Mi Jung Lee, Yonsei University College of Medicine. Saturday, November 7, 5:30 p.m., Room 26

Transplantation
TH-OR074  Translation of Anti-Fibrotic MicroRNA Strategies into a Mouse Model of Chronic Allograft Dysfunction—Celina Schauerte, Hannover Medical School. Thursday, November 5, 6:18 p.m., Room 10
FR-OR073  Factors Influencing Decision about Kidney Transplant: A Survey of Dialysis Patients—Fareeha Khalil, Penn State Hershey Medical Center. Friday, November 6, 5:30 p.m., Room 2
FR-OR075  Increased Circulating T-Lymphocytes Expressing HLA-DR in Kidney Transplant Recipients with Microcirculation Inflammation—Chan-Duck Kim, Kyungpook University Hospital. Friday, November 6, 5:54 p.m., Room 2

Vascular Biology
FR-OR029  Dialysis with Medium Cut-Off (MCO) Filters Reduces In Vitro Calcification of Human VSMC: Lessons from a Randomized Clinical Trial—Daniel Zickler, Charité University Berlin. Friday, November 6, 6:06 p.m., Room 24
NIH and Informational Posters

Thursday, November 5 – Saturday, November 7

Exhibit Halls A/B

NIH01 Training, Career Development, and Contacts*
NIH02 Resources: Basic, Translational, and Clinical Research*
NIH03 Funding and Research Opportunities*
NIH04 NKDEP: Translating NIH Research into Improved CKD Outcomes*

* Program Directors, Division of Kidney, Urologic and Hematologic Diseases, NIDDK


INFO03 UAB-UCSD O’Brien Core Center for Acute Kidney Injury (AKI) Research—Anupam Agarwal, Paul W. Sanders, Alabama at Birmingham; Ravindra L. Mehta, University of California, San Diego.

INFO04 The George M. O’Brien Kidney Center at Yale—Peter S. Aronson, Stefan Somlo, Yale School of Medicine.

INFO05 The George M. O’Brien Kidney Translational Core Center at the University of Michigan—Frank C. Brosius¹, Keith Bellovich², Zeenat Bhat³, James Cavalcoti, Crystal Gadegbeks¹, Debbie Gipson¹, Jennifer Hawkins¹, Julia Herzog¹, Susan Massengill³, Subramaniam Pennathur¹, Kalyani Perumal⁶, Roger Wiggins¹, Matthias Kretzler¹. ¹University of Michigan, ²Renaissece Renal Research Institute, ³Wayne State University, ⁴Temple University, ⁵Levine Children’s Hospital, ⁶University of Illinois at Chicago.

INFO06 UT Southwestern O’Brien Kidney Center Research Core Center—M. Baum, T.J. Carroll, C.L. Huang, R.E. Lenkinski, C. Lu, D.K. Marciano, O.W. Moe, J.A. Richardson, R.D. Toto, W. Vongpatanasin, Depts of Internal Medicine, Pediatrics, Pathology, and Radiology, University of Texas Southwestern Medical Center.

INFO07 PKD Research Biomaterials and Cellular Models Core—Darren P. Wallace, Gail A. Reif, Dept of Internal Medicine, The Kidney Institute, University of Kansas Medical Center.

INFO08 The Kansas PKD Research and Translation Core Center—James P. Calvet, Christopher J. Ward, Xiaogang Li, Darren P. Wallace, Alan S.L. Yu, The Kidney Institute, University of Kansas Medical Center.
NIH and Informational Posters (cont.)

INFO09  Mayo Translational Polycystic Kidney Disease Center (MTPC)–Vicente E. Torres1, Peter C. Harris1,2, Stephen C. Ekker3, Bradley J. Erickson3, Michael F. Romero4, Marie C. Hogan1, Ziad M. El-Zoghby1, Caroline R. Sussman1, Jinghua Hu2, Jan van Deursen, Bernard F. King3, Maria V. Irazabal1, Timothy L. Kline3.

1Nephrology and Hypertension, 2Biochemistry and Molecular Biology, 3Radiology, 4Biomedical Engineering and Physiology, Mayo Clinic.

INFO10  Morphometry and Stereology Core Laboratory at Charles R. Drew University of Medicine and Science–John M. Basgen, Charles Drew University of Medicine and Science.


1NEPTUNE, 2China-DiKip, 3EURenOmics.

INFO12  Vanderbilt Center for Kidney Disease–Raymond C. Harris, Ambra Pozzi, Division of Nephrology and Hypertension, Vanderbilt University Medical School.

INFO13  UCLA Pediatric Bone Histomorphometry Core Laboratory–Renata C. Pereira, Katherine Wesseling-Perry, Barbara Gales, Isidro B. Salusky, Dept of Pediatrics, David Geffen School of Medicine at UCLA.

INFO14  NIDDK P50DK096418 – Critical Translational Studies in Pediatric Nephrology–Prasad Devarajan, Cincinnati Children’s Hospital.

INFO15  Identifying Genetic Causes of Inherited Kidney Disease: Establishing a Registry of UMOD, REN, and MUC1 Families–Anthony J. Bleyer, Wake Forest School of Medicine; Stanislav Kmoch, Charles University First Faculty of Medicine.

INFO16  National Transplantation Pregnancy Registry (NTPR)–Serban Constantinescu, Lisa Coscia, Dawn P. Armenti, Michael J. Moritz, Gift of Life Institute-National Transplantation Pregnancy Registry (NTPR).

INFO17  Nephrotic Syndrome Study Network (NEPTUNE)–Matthias Kretzler, Larry B. Holzman1, Crystal Gadegbeku2, Chrysta C. Lienczewski, Tina Mainieri, Debbie Gipson, on behalf of the Nephrotic Syndrome Study Network, University of Michigan. 1University of Pennsylvania, 2Temple University.
The NEPTUNE Digital Pathology Protocol for Evaluation of Nephrotic Syndrome—L. Barisoni1, C.C. Nast2, J.C. Jennette3, J.B. Hodgin4, C. Avila-Casado5, K.V. Lemley6, A.Z. Rosenberg7,10, J.B. Kopp8, M. Kretzler9, C. Kincaid-Beal6, C. Lienczewski9, S.M. Bagnasco10, M. Palmer11, D.B. Thomas1, V. Royal13, J. Gaut13, C.M. Conway14, S.M. Hewitt7. 1Dept of Pathology, University of Miami, Miller School of Medicine, 2Dept of Pathology Cedars-Sinai Medical Center, 3Dept of Pathology, University of North Carolina, 4Dept of Pathology, University of Michigan, 5Dept of Pathology, University Health Network Toronto, 6Dept of Pediatrics, Division of Pediatric Nephrology, Children’s Hospital Los Angeles, 7Laboratory of Pathology, NCI, NIH, 8Kidney Disease Section, NIDDK, NIH, 9Dept of Internal Medicine, Nephrology, University of Michigan, 10Dept of Pathology, John Hopkins University, 11Dept of Pathology, University of Pennsylvania, 12Dept of Pathology, University of Montreal, 13Dept of Pathology, Washington University, 14Leica Biosystems.

Kidney Disease Progression in Adults with CKD – Study Design and Preliminary Results of the CKDOD Registry—Bharat Shah, Anil Clinic; Ashok Kirpalani, Kidney and Blood Pressure Clinic; Sham Sunder, Dept of Nephrology, Ram Manohar Lohiya Hospital; Ashwani Gupta, Intermed Superspeciality Clinic; Umesh Khanna, Lancelot Hospital; Deodatta Chafekar, Supreme Kidney Care; Tan Li Ping, University Malaysia Medical Centre, Renal Unit, Faculty of Medicine; Dhavee Sirivongs, Dept of Medicine, Khon Kaen Medical School; Dilip Pahari, Dr. Medica Institute of Kidney Diseases; Gokul Nath, Dept of Nephrology, St. John’s Medical College & Hospital; T. Alp Ikizler, Vanderbilt University School of Medicine.

Ambulatory Blood Pressure in Chronic Kidney Disease: An International Collaborative Study—Paul Drawz1, Luca De Nicola, Naohiko Fujii, Francis Gabbai, Jennifer Gassman, Satoshi Iimuro, Roberto Minutolo, Robert Phillips, Luis Ruilope, Raymond Townsend, Mahboob Rahman. 1Division of Renal Diseases & Hypertension, University of Minnesota.

The US Centers for Disease Control and Prevention’s (CDC) – Chronic Kidney Disease (CKD) Surveillance – An Evolving Resource for Researchers, Providers, and Policy Makers—Rajiv Saran1, Nilka Rios Burrows2, Neil Powe3, for the CDC-CKD Surveillance Team. 1University of Michigan, 2Centers for Disease Control and Prevention, 3University of California, San Francisco.

Undertaking Collaborative and Ancillary Studies with the DOPPS—Bruce Robinson1,2, Ron Pisoni1, Francesca Tentori1,2, Justin Albert. 1Arbor Research Collaborative for Health, 2University of Michigan, 3Vanderbilt University.

Rare Kidney Stone Consortium: A Rare Disease Center of the NIDDK and Office of Rare Diseases Research—Dawn S. Milliner, Mayo Clinic; John C. Lieske, Mayo Clinic; David S. Goldfarb, NYU Langone Medical Center; Vidar Edvardsson, Landspitali The National University Hospital.
INFO24  **NephCure Accelerating Cures Institute (NACI)—**D.S. Gipson¹, S. Massengill³, E. Kami³, M. Elliott⁴, P. Chuang⁴, D. Selewski¹, P. Gipson¹, H. Desmond¹, Cathie Spino¹, Mark Stone⁵. ¹University of Michigan (Pediatrics, Internal Medicine, Biostatistics), ²Levine Children’s Hospital, ³Cedars Sinai Medical Center, ⁴Metrolina Nephrology Associates, ⁵NephCure Kidney International.

INFO25  **Cure Glomerulonephropathy Network (CureGN)—**Andrew Bomback¹, Ronald Falk², Michael Flessner³, Ali Gharavi¹, Brenda Gillespie⁴, Deb Gipson⁵, Larry Greenbaum⁵,⁶, Lisa Guay-Woodford⁷, Michelle Hladunewich⁸, Lawrence Holzman⁵, Laura Marianii⁴,¹⁰, Julie McGregor⁶, Matthias Kretzler¹, Michelle Rheault⁶,¹¹, Bruce Robinson⁴,¹⁰, William Smoyer⁶,¹², on behalf of the CureGN Consortium. ¹Columbia University, ²University of North Carolina, ³NIH-NIDDK, ⁴University of Michigan, ⁵Emory University, ⁶Midwest Pediatric Nephrology Consortium, ⁷Children’s National Health System, ⁸Sunnybrook Health Sciences Centre, ⁹University of Pennsylvania, ¹⁰Arbor Research Collaborative for Health, ¹¹University of Minnesota, ¹²Nationwide Children’s Hospital.

INFO26  **Goal Directed Therapy to Prevent Acute Kidney Injury after Cardiac Surgery: A Randomized Clinical Trial—**Eduesley Santana-Santos, Ludhmila Abrahão Hajjar, Jose Jayme Galvao de Lima, Luis Aparecido Bortolotto, Filomena Regina Barbosa Gomes Gallas.


INFO28  **Rationale and Study Design of Pyridoxamine Dihydrochloride in Subjects with Nephropathy due to Type 2 Diabetes (PIONEER-CSG-17)—**Jamie P. Dwyer¹, Mohammed Sika¹, Laura E. Greene¹, Kausik Umanath², Mohamed Zidan², Pepper Landson³, Bob Peterson³, J. Wesley Fox³, Julia B. Lewis¹. ¹Vanderbilt University, ²Henry Ford Hospital, ³NephroGenex, Inc.
INFO29  
MENTOR – MEmbranous Nephropathy Trial Of Rituximab—  
Fernando C. Fervenza1, Pietro A. Canetta2, Sean J. Barbour3,  
Richard A. Lafayette4, Brad H. Rovin5, Nabeel Aslam6,  
Michelle A. Hladunewich7, Sanjeev Sethi8, Debbie S. Gipson9,  
Heather N. Reich10, Paul Brenchley11, Matthias Kretzler11, Jai Radhakrishnan12,  
Lee A. Herbert13, Patrick E. Gipson9, Leslie F. Thomas12, Ellen T. McCarthy13,  
Gerald B. Appel14, J. Ashley Jefferson14, John C. Lieske1, Marie C. Hogan1,  
Eddie L. Greene1, John J. Dillon4, Nelson Leung1, John R. Sedor15,  
Dana V. Rizk16, Samuel S. Blumenthal17, Lada B. Lasic18, Luis A. Juncos19,  
Dollie F. Green20, James Simon21, Amy N. Sussman22, David Philibert23,  
Carmen Avila-Casado7, Daniel C. Cattran7, for the MENTOR Consortium Group.  
1Division of Nephrology and Hypertension, Mayo Clinic, Rochester;  
2Division of Nephrology, Columbia University; 3Division of Nephrology,  
University of British Columbia; 4Division of Nephrology and Hypertension,  
Stanford University Medical Center; 5Division of Nephrology, Ohio State  
University; 6Division of Nephrology and Hypertension, Mayo Clinic,  
Jacksonville; 7University of Health Network, Toronto General Hospital;  
8Dept of Laboratory Medicine and Pathology, Mayo Clinic, Rochester;  
9Division of Nephrology, University of Michigan; 10Manchester Royal  
Infirmary; 11Internal Medicine/Nephrology and Computational Medicine  
and Bioinformatics, University of Michigan; 12Division of Nephrology  
and Hypertension, Mayo Clinic, Scottsdale; 13Division of Nephrology  
and Hypertension, University of Kansas Medical Center; 14Division  
of Nephrology, University of Washington Medical Center; 15Dept  
of Medicine and Physiology & Biophysics, Case Western Reserve University;  
16Division of Nephrology, University of Alabama; 17Division of Nephrology,  
Medical College of Wisconsin; 18Division of Nephrology, New York  
University; 19Division of Nephrology, University of Mississippi Medical  
Center; 20Division of Nephrology and Hypertension, University of Miami;  
21Division of Nephrology and Hypertension, Cleveland Clinic; 22Division  
of Nephrology, University of Arizona; 23Centre Hospitalier Universitaire  
de Québec.

INFO30  
A Single Center Pilot Trial of Rituximab in the Treatment of Fibrillary  
Glomerulonephritis—S.B. Erickson, J.J. Dillon, M.C. Hogan, V. Garovic,  
E. Greene, N. Leung, F.C. Fervenza, Mayo Clinic.

INFO31  
A Pilot Study to Assess the Efficacy of Rituximab Therapy in  
Patients with Treatment Resistant Idiopathic Focal Segmental  
Glomerulosclerosis (FSGS): Integrating an Assessment of suPAR and  
Activation of Podocyte β3 Integrin—F.C. Fervenza1, M. Hladunewich2,  
D. Cattran3, J. Reiser4, F. Kaske5, H. Trachtman6, S.B. Erickson1,  
M.C. Hogan1. 1Mayo Clinic, 2Sunnybrook Health Sciences Centre,  
3University Health Network (Toronto General Hospital), 4Rush University  
Medical Center, 5Albert Einstein College of Medicine (The Children’s  
Hospital at Montefiore), 6New York University Medical Center.
INFO32  An Open-Label Pilot Study of ACTH in the Treatment of IgA Nephropathy at High Risk of Progression—F.C. Fervenza1, P. Canetta2, G. Appel3, R. Lafayette3, N. Aslam4, J. Dillon1, M. Hogan1, N. Leung1, L. Zand1, J. Lieske5, S. Sethi6. 1Division of Nephrology and Hypertension, Mayo Clinic, Rochester; 2Division of Nephrology, Columbia University; 3Division of Nephrology and Hypertension, Stanford University Medical Center; 4Division of Nephrology and Hypertension, Mayo Clinic, Jacksonville; 5Dept of Laboratory Medicine and Pathology, Mayo Clinic, Rochester.

INFO33  SYK Inhibition in Glomerulonephritis: The SIGN Study—Stephen P. McAdoo1, Esteban Masuda2, Dan Magilavy2, Frederick W.K. Tam1. 1Imperial College London, 2Rigel Pharmaceuticals.

INFO34  REPRISE: A Phase 3b Multicenter Trial of Tolvaptan in Adult Subjects with ADPKD—V.E. Torres1, A.B. Chapman2, O. Devuyst3, R.T. Gansevoort4, E. Higashihara5, R.D. Perrone6, J. Ouyang7, O. Sergeyeva1, L. Debuque7, J. Blais7, F.S. Czerwiec7. 1Rochester, USA; 2Atlanta, USA; 3Zurich, Switzerland; 4Groningen, Netherlands; 5Tokyo, Japan, 6Boston, USA; 7Otsuka PDC, Rockville, USA.

INFO35  The Wearable Cardioverter Defibrillator in Hemodialysis Patients (WeD-Hed) Study—Charles Herzog, Chronic Disease Research Group, Minneapolis Medical Research Foundation, University of Minnesota; Wojciech Zareba, Heart Research Follow-up Program, University of Rochester Medical Center; Steven J. Szymkiewicz, ZOLL.

INFO36  Assessing the Efficiency of CAPD as an Effective Mode of RRT in ESRD Patients of Bangladesh—M.M. Iqbal1, S. Iqbal2, M.A. Samad3, K.S. Alam4. 1SSMC & Mitford Hospital, 2BIRDEM General Hospital, 3Lab Aid Specialized Hospital, 4NIKDU Hospital.
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Advances in Research Conference: Engineering Genomes to Model Disease, Target Mutations, and Personalize Therapy

November 3–4, 2015

Faculty
Ali G. Gharavi, MD, *Co-Chair*
Benjamin D. Humphreys, MD, PhD, FASN, *Co-Chair*
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Andrew P. McMahon, PhD
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Friedhelm Hildebrandt, MD
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Iain A. Drummond, PhD
Jeffrey H. Miner, PhD, FASN
Jianghui Hou, PhD
Jonathan M. Barasch, MD, PhD
Joseph V. Bonventre, MD, PhD, FASN
Juan Carlos Izpisua Belmonte, PhD
Justin Ichida, PhD
Martin R. Pollak, MD
Melissa H. Little, PhD
Paula Cannon, PhD
Peter C. Harris, PhD
Simone Sanna-Cherchi, MD
Stefan Somlo, MD
Stephanie Cherqui, PhD

Program details are available on the ASN website and in the program syllabus.
Business of Nephrology: Impact of the Evolving US Health Care System on Nephrology Practice

November 4, 2015

Jointly sponsored with the Renal Physicians Association.

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Jay B. Wish, MD, Co-Chair
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Stuart Senkfor, MD
Suzanne J. Przybyla

Program details are available on the ASN website and in the program syllabus.
Critical Care Nephrology: 2015 Update

November 3–4, 2015

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Paul M. Palevsky, MD, FASN
Ravindra L. Mehta, MD, FASN
Ron Wald, MD
Saima Aslam, MD
Steven D. Weisbord, MD, FASN

Program details are available on the ASN website and in the program syllabus.
Curing Kidney Disease: At the Crossroads of Biology, Infrastructure, Patients, and Government

November 4, 2015

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Paul T. Conway
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Reshma Kewalramani, MD, FASN
William Henry Fissell, MD
Wolfgang C. Winkelmayer, MD, PhD, MPH

Program details are available on the ASN website and in the program syllabus.
Diagnosis and Management of Disorders of Acid-Base, Fluid, and Electrolyte Balance: Challenging Issues for the Clinician

November 3–4, 2015

Supported by an independent educational grant from ZS Pharma.

Faculty
Horacio J. Adrogue, MD, Co-Chair
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Michael Emmett, MD
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Program details are available on the ASN website and in the program syllabus.
Faculty
Charles E. Alpers, MD, Co-Chair
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Anthony Chang, MD, FASN
Dan Walker
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Venkat Ramanathan, MD, FASN

Program details are available on the ASN website and in the program syllabus.
Geriatric Nephrology: Caring for Older Adults with Kidney Disease

November 4, 2015

ASN thanks its Geriatric Nephrology Advisory Group for assistance with this program.

Faculty
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Sarbjit Vanita Jassal, MD, PhD
Snezana Petrovic, MD, PhD, FASN

Program details are available on the ASN website and in the program syllabus.
ASN thanks its Glomerular Disease Advisory Group for assistance with this program.

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William Franklin Pendergraft, MD, PhD

Program details are available on the ASN website and in the program syllabus.
Kidney Transplantation

November 3–4, 2015

In cooperation with the American Society of Transplantation.

ASN thanks its Transplant Advisory Group for assistance with this program.

Faculty
Alexander C. Wiseman, MD, Co-Chair
Roy D. Bloom, MD, Co-Chair
Amit X. Garg, MD, PhD
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Daniel C. Brennen, MD
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John J. Friedewald, MD
John S. Gill, MD
Kathryn J. Tinckam, MD
Leonardo V. Riella, MD, PhD, FASN
Lorraine C. Racusen, MD, FASN
Milagros D. Samaniego-Picota, MD, FASN
Peter P. Reese, MD
Richard Formica, MD
Roslyn B. Mannon, MD, FASN
Simin Goral, MD
Vineeta Kumar, MD

Program details are available on the ASN website and in the program syllabus.
ASN thanks its Dialysis Advisory Group for assistance with this program.

Faculty
Mark L. Unruh, MD, Co-Chair
Peter G. Blake, MbChB, Co-Chair
Rajnish Mehrotra, MD, FASN, Co-Chair
Arsh Jain, MD
Beth M. Piraino, MD
Braden J. Manns, MD
Charles A. Herzog, MD
Charmaine E. Lok, MD, MPH
Christopher T. Chan, MD
Christopher W. McIntyre, MD
Dana Miskulin, MD
David M. Charytan, MD
Jennifer E. Flythe, MD, MPH, FASN
Joanne M. Bargman, MD
Joel D. Glickman, MD
Kamyar Kalantar-Zadeh, MD, PhD, MPH, FASN
Linda F. Fried, MD, MPH, FASN
Michel Chonchol, MD
Mitchell H. Rosner, MD, FASN
Nisha Bansal, MD
Patrick H. Pun, MD
Prabir Roy-Chaudhury, MD, PhD, FASN
Sarbjit Vanita Jassal, MD, PhD
Susan Hedayati, MD, FASN

Program details are available on the ASN website and in the program syllabus.
Maintenance of Certification: NephSAP Review and ABIM Modules

November 3–4, 2015

ASN thanks the American Board of Internal Medicine and the American College of Physicians for assistance with this program.

Faculty
Gerald A. Hladik, MD, FASN, Co-Chair
Patrick C. Alguire, MD, Co-Chair
Asghar Rastegar, MD
Cybele Ghossein, MD
James E. Novak, MD, PhD, FACP
James J. Paparello, MD
Jeffrey S. Berns, MD, FASN
Jon Mimm
Linda F. Fried, MD, MPH, FASN
Manoocher Soleimani, MD
Marc Shalaby, MD
Philip A. Masters, MD
Richard Eisenstaedt, MD

Program details are available on the ASN website and in the program syllabus.
Polycystic Kidney Disease: Translating Mechanisms into Therapy

November 4, 2015

ASN thanks the PKD Foundation for its assistance with this program.

Faculty
Benjamin D. Cowley, MD, FASN, Co-Chair
John J. Bissler, MD, Co-Chair
Ahsan Alam, MD
Andreas L. Serra, MD, MPH
Arlene B. Chapman, MD
Charles L. Edelstein, MD, PhD
Dana Miskulin, MD
Marie C. Hogan, MBChB, MD, PhD, FASN
Peter C. Harris, PhD
Terry J. Watnick, MD
Theodore I. Steinman, MD, FASN
Vicente E. Torres, MD, PhD
York P. Pei, MD, FASN

Program details are available on the ASN website and in the program syllabus.
Women’s Renal Health across the Decades

November 3–4, 2015

Faculty
Belinda Bun Jim, MD, Co-Chair
Michelle A. Hladunewich, MD, FASN, Co-Chair
Jean L. Holley, MD
Kate Bramham, MBBS, PhD
Lakshmi Mehta, MD
Liz Lightstone, MD, PhD
Maria E. Ferris, MD, PhD, MPH
Nicholas Kametas, MD
Phyllis August, MD, MPH
S. Ananth Karumanchi, MD
Sofia B. Ahmed, MD
Susan Abbey, MD
Tiina Podymow, MD
Valerie A. Luyckx, MD
Vesna D. Garovic, MD
Wendy Vitek, MD

Program details are available on the ASN website and in the program syllabus.
### AHSA PVC 2015

#### AMERICAN SOCIETY OF NEPHROLOGY

#### KIDNEY WEEK 2015

#### DAY-AT-A-GLANCE

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| 8:00 a.m. – 9:30 a.m. | Opening Plenary Session  
Page 18 President's Address, President's Medal, Diamond Level Corporate Supporters Recognition, State-of-the-Art Lecture  
*Hall D*

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| 9:30 a.m. – 10:00 a.m. | Morning Break  
*Exhibit Halls B-C* |

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| 9:30 a.m. – 2:30 p.m. | Scientific Exposition  
*Exhibit Halls B-C* |

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| 9:30 a.m. – 4:30 p.m. | Posters  
*Exhibit Halls A-B*  
Authors will be available at their posters 10:00 a.m. – 12:00 p.m.|

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| 10:30 a.m. – 12:30 p.m. | Basic and Clinical Science Sessions  
Page 20 Emerging Insight into the Role of Iron in AKI  
*Room 1* |

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| 10:30 a.m. – 12:30 p.m. | Clinical Practice Sessions  
Page 21 A New Day for Diabetic Kidney Disease  
*Room 20C/D*  
Page 22 Access to Kidney Transplant: Can't Get There from Here  
*Room 6C*  
Page 23 Hot Debates: 1. FGF23 Does (Not) Cause Poor CKD Outcomes;  
2. Osteoporosis in CKD Is (Not) Different  
*Room 6B*  
Page 24 Improving Outcomes in Lupus Nephritis  
*Room 20A/B*  
Page 25 Secondary Hypertension  
*Room 6A* |

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| 10:30 a.m. – 12:30 p.m. | Translational Sessions  
Page 26 Kidney Tumors: What Is Important for Nephrologists?  
*Room 6F*  
Page 27 Making the Connection between Transport Physiology and Common Electrolyte Disorders  
*Room 5* |

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<td>12:30 p.m. – 2:00 p.m.</td>
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| 12:45 p.m. – 1:45 p.m. | Educational Symposia  
Please refer to the *Guide to Educational Symposia* for titles and locations.  
Doors will open at 12:30 p.m. Lunch will be provided.  
Limited seating; first-come, first-served to fully paid Annual Meeting participants.  
*Manchester Grand Hyatt* |
### 2:00 p.m. – 4:00 p.m.  
**Basic and Clinical Science Sessions**

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<td>Beyond Dialysis: Into a Brave New World</td>
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<td>FGF23 Excess in CKD: Novel Targets of Regulation and End-Organ Effects, Including the Jack W. Coburn, MD, Endowed Lectureship</td>
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<td>It's Time to Have an Effective Therapy for AKI Already, Including the Robert W. Schrier, MD, Endowed Lectureship</td>
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<td>We Are Not Alone: Gut Microbiota and Kidney Disease</td>
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### 2:00 p.m. – 4:00 p.m.  
**Clinical Practice Sessions**

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<td>Trends, Challenges, and Mandates in CKD and ESRD: The New USRDS Contributions and Opportunities</td>
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**Special Sessions**

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<td>The Shifting Landscape of Health Care Payment Models, Including the Christopher R. Blagg, MD, Lectureship in Renal Disease and Public Policy</td>
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**Translational Sessions**

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### 4:00 p.m. – 4:30 p.m.  
**Afternoon Break**

*Exhibit Halls A-B*
### Clinical Practice Sessions

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### Oral Abstract Sessions

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<td>Hemodialysis Vascular Access: Can We Do Better?</td>
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<td>Podocytes and Beyond: New Targets and Mechanisms of Injury</td>
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<td>Recent Developments in Phosphate, FGF-23, and Klotho Biology</td>
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<td>Targeting Cardiovascular Health and Function in CKD</td>
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8:00 a.m. – 9:30 a.m. Opening Plenary Session

President’s Address, President’s Medal, Diamond Level Corporate Supporters Recognition, State-of-the-Art Lecture

Hall D

Supported by an independent educational grant from Akebia Therapeutics, Inc.

Upon completion of this session, the participant will be able to describe the global burden of kidney disease to improve public health.

8:00 a.m. President’s Address
Jonathan Himmelfarb, MD, FASN

8:35 a.m. President’s Medal
George Lopez

8:45 a.m. Diamond Level Corporate Supporters Recognition

8:50 a.m. State-of-the-Art Lecture “Measuring the Global Burden of Kidney Disease to Improve Public Health”
Christopher J.L. Murray, MD
10:00 a.m. – 12:00 p.m. Poster Presentations

Exhibit Halls A-B

NIH and Informational Posters
AKI: Basic - I (001-050)
AKI: Clinical (051-098)
Dialysis for AKI: Hemodialysis, CRRT, SLED, Others (099-125)
Basic/Experimental Inflammation (126-175)
Molecular Mechanisms in PKD Pathogenesis (176-223)
Glomerular Epithelial Cell Injury and Rescue (224-260)
Transplantation: Basic and Experimental (261-277)
Cell Signaling/Oxidative Stress (278-313)
Diabetes Mellitus and Obesity: Basic-Experimental - I (314-372)
Vascular Biology: Atherosclerosis, Inflammation, Endothelium (373-416)
Lymphatics and Vascular Function in Renal Health and Disease (417-423)
Na+, K+, and Cl- Basic Science (424-451)
Pediatric Nephrology (452-478)
Mineral Disease: Vitamin D, PTH, FGF-23 (479-524)
CKD: Risk Factors for Incidence and Progression - I (525-584)
CKD: Epidemiology, Outcomes: Cardiovascular (585-639)
CKD: Clinical Trials (640-678)
Clinical/Diagnostic Renal Pathology and Lab Medicine (679-740)
Clinical Glomerular and Tubulointerstitial Disorders - I (741-797)
Standard Hemodialysis for ESRD - I (798-837)
Hemodialysis Vascular Access: From Bench to Bedside (838-882)
Dialysis: Epidemiology, Outcomes: Cardiovascular - I (883-923)
Dialysis: Epidemiology, Outcomes, and Clinical Trials: Noncardiovascular - I (924-983)
Peritoneal Dialysis - I (984-1025)
Fellows Case Reports - I (1026-1075)
Fellows Case Reports - II (1076-1125)

Please note that this book contains poster sessions but not individual abstract titles and authors. For abstract titles, authors, and more, please refer to the Kidney Week Mobile App, the “Locate Me” Kiosks for Posters and Exhibits in the exposition halls, or the Abstract Supplement PDF at www.asn-online.org/KidneyWeek.
Emerging Insight into the Role of Iron in AKI

Room 1

Emerging evidence suggests that iron plays a detrimental role in AKI. This session highlights recent research efforts aimed at elucidating the relationship between plasma iron, AKI, and mortality, along with the role of iron in the pathogenesis of AKI.

Upon completion of this session, the participant will be able to: 1) describe the role of heme oxygenase-1 in AKI; 2) explain the association between iron, AKI, and death; and 3) discuss the link between H-ferritin, iron trafficking, and AKI.

Core Competency: Professionalism, Medical Knowledge

Moderators: Sudhir V. Shah, MD, and Richard A. Zager, MD

10:30 a.m. Plasma Catalytic Iron, AKI, and Death
David E. Leaf, MD, FASN

11:00 a.m. Heme Oxygenase-1 and AKI
Karl A. Nath, MD

11:30 a.m. H-Ferritin, Iron Trafficking, and AKI
Abolfazl Zarjou, MD, PhD

12:00 p.m. Ngal and Iron Sequestration in AKI
Jonathan M. Barasch, MD, PhD
10:30 a.m. – 12:30 p.m.  
Clinical Practice Session

A New Day for Diabetic Kidney Disease

Room 20C/D

ASN thanks the American Diabetes Association for assistance with this session.

The session reviews major remaining gaps in care that create ongoing challenges for management of diabetic kidney disease (DKD) and addresses these gaps with a focus on personalizing care by use of the kidney biopsy, using systems biology to identity novel therapeutic targets, and harmonizing clinical trial design to facilitate clinical translation of novel therapeutics.

Upon completion of this session, the participant will be able to: 1) describe successes that have been achieved in DKD management; 2) identify major remaining gaps in DKD care that create ongoing challenges; 3) discuss the use of the kidney biopsy to diagnose, stage, and identify therapeutic approaches to DKD; 4) explain how systems biology can uncover previously unknown mechanisms that can be targeted for DKD therapies; and 5) describe the impact of clinical trial design in DKD and the need for harmonization to enhance translation of novel therapies.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:  
Robert G. Nelson, MD, PhD, and Katherine R. Tuttle, MD, FASN

10:30 a.m.  Current Successes and Ongoing Challenges in Diabetic Kidney Disease  
Hermann G. Haller, MD

11:00 a.m.  Personalizing Care by Kidney Biopsy in Diabetic Kidney Disease  
Agnes B. Fogo, MD

11:30 a.m.  Systems Approach to Identifying Novel Therapeutic Targets for Diabetic Kidney Disease  
Matthew D. Breyer, MD, FASN

12:00 p.m.  Harmonizing Clinical Trial Design to Enhance Translation of Novel Therapies  
Aliza M. Thompson, MD
Access to Kidney Transplant: Can’t Get There from Here

Room 6C

Kidney transplant is the optimal treatment for patients with kidney failure. Unfortunately, significant barriers to kidney transplant persist. Geography can influence the likelihood of getting transplanted, as can patient characteristics, both modifiable [body mass index (BMI)] and nonmodifiable (age and sex). Race and socioeconomic status have an impact on both the probability of being listed and eventually transplanted, as well as the possibility of finding an acceptable living donor. In this session, experts in the field review these disparities and suggest solutions.

Upon completion of this session, the participant will be able to: 1) discuss the influence of geography in the transplant listing process; 2) identify the impact of age, sex, and BMI with regard to transplantation; 3) describe problems that certain groups encounter when searching for a living donor; and 4) explain the challenge posed by racial and socioeconomic barriers to transplant.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Systems-based Practice

Moderators:
Mark S. Segal, MD, PhD, FASN, and Titte Srinivas, MD

10:30 a.m.  Location, Location, Location
Rachel E. Patzer, PhD, MPH

11:00 a.m.  Effect of Age, Sex, and BMI
Mara McAdams-DeMarco

11:30 a.m.  Why Can’t I Find a Living Donor?
Prabhakar Baliga, MD

12:00 p.m.  Race and Socioeconomic Status: Still a Hurdle to Transplant
Connie Rhee, MD
THURSDAY, NOVEMBER 5, 2015

10:30 a.m. – 12:30 p.m. Clinical Practice Session

Hot Debates: 1. FGF23 Does (Not) Cause Poor CKD Outcomes;
2. Osteoporosis in CKD Is (Not) Different

Room 6B

Supported by an independent educational grant from OPKO Renal.

This session debates two hot topics. First, there are mixed data implicating fibroblast growth factor (FGF) 23 in renal and cardiovascular pathology in CKD, which have led to major confusion among nephrologists. Second, it is not clear whether osteoporosis should be managed in CKD the same way that is handled in the non-CKD general population. It is less clear whether renal osteodystrophy and its management have any bearing on osteoporosis in CKD.

Upon completion of this session, the participant will be able to: 1) summarize the physiologic regulation of mineral metabolism based on novel discoveries about the role of FGF23 in this process; 2) describe the current state of knowledge regarding the association of FGF23 with adverse outcomes; 3) critically assess current evidence supporting or refuting the direct effect of FGF23 on cardiovascular outcomes; 4) describe the uniqueness of osteoporosis in CKD; and 5) critically assess current medications used for osteoporosis to be used in CKD patients.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Csaba P. Kovesdy, MD, and Wei Ling Lau, MD

10:30 a.m. FGF23 Causes Poor CKD and Cardiac Outcomes
Orlando M. Gutierrez, MD

11:00 a.m. FGF23 Does Not Cause Poor CKD or Cardiac Outcomes
Leigh Darryl Quarles, MD

11:30 a.m. Osteoporosis in CKD: To Treat with Bisphosphonate and RANK-Ligand Modulators
Sharon M. Moe, MD, FASN

12:00 p.m. Osteoporosis in CKD: Not to Treat (We Already Treat MBD)
Stuart M. Sprague, DO, FASN
Improving Outcomes in Lupus Nephritis

Room 20A/B

The outcomes of therapy in proliferative lupus nephritis have remained generally disappointing despite multiple recent clinical trials with new biologic agents. This session provides an overview of the results of recent clinical trials and explores genetic, serologic risk factors, as well as nonbiologic contributors influencing outcomes in proliferative lupus nephritis.

Upon completion of this session, the participant will be able to: 1) describe the outcomes of various immunosuppressive regimens in proliferative lupus nephritis; 2) recognize genetic and serologic factors that influence outcomes in proliferative lupus nephritis; 3) discuss nonbiologic factors that influence outcomes in lupus nephritis; and 4) discuss strategies to prevent complications from both proliferative lupus nephritis and medications used for its treatment.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:  
Jai Radhakrishnan, MBBS, MD, FASN, and Brad H. Rovin, MD, FASN

10:30 a.m. Overview of Outcomes in Proliferative Lupus Nephritis  
Derek M. Fine, MD

11:00 a.m. “Biologic” Variables Affecting Renal Outcomes in Lupus Nephritis  
Fernando C. Fervenza, MD, PhD, FASN

11:30 a.m. “Nonbiologic” Variables Affecting Renal Outcomes in Lupus Nephritis  
Gabriel Contreras, MD, MPH

12:00 p.m. Preventing SLE Complications and Its Treatments: Cardiovascular Disease, Thrombosis, Infections  
Luis F. Flores-Suarez, MD, PhD
Secondary Hypertension

Room 6A

ASN thanks its Hypertension Advisory Group for assistance with this session.

Secondary hypertension, those clinical syndromes that are caused by specific hormonal, renal, or anatomic abnormalities, pose a unique challenge because they are potentially curable. Failure to diagnose these entities leads to unnecessary morbidity and mortality and a missed opportunity to cure what would otherwise be a “chronic disease.” This session presents new discoveries in pathogenesis and treatment of renovascular hypertension and primary aldosteronism.

Upon completion of this session, the participant will be able to: 1) summarize mechanistic insights gained from animal models regarding the pathophysiology of renovascular hypertension and ischemic nephropathy; 2) recommend the appropriate diagnosis and treatment of fibromuscular dysplasia and the nonrenal manifestations; 3) describe mechanisms of aldosterone-mediated hypertension; and 4) discuss diagnostic and therapeutic strategies for primary aldosteronism.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Lance D. Dworkin, MD, FASN, and Amret T. Hawfield, MD

10:30 a.m. Animal Models of Renovascular Hypertension: From Swine to Pearls
Alejandro R. Chade, MD

11:00 a.m. Fibromuscular Dysplasia: The Kidney and Beyond
Jeffrey W. Olin, MD

11:30 a.m. Aldosterone Blood Vessels and Hypertension
Celso E. Gomez-Sanchez, MD

12:00 p.m. Clinical Approach to Aldosteronism
Robert M. Carey, MD
Discovery of characteristic molecular changes has identified distinct new tumor entities. These molecular changes underlying the various morphologies led to new therapies, which are currently introduced. Such therapies may carry important renal side effects that are of interest to the nephrologists. This session reviews the importance of molecular changes in renal cancer, new entities and a new classification system in renal cancer, new treatment options and recent trials in kidney tumors, side effects of new targeted therapies in oncology, and how to approach a kidney mass.

Upon completion of this session, the participant will be able to: 1) explain the importance of molecular changes in renal cancer; 2) describe new entities and a new classification system in renal cancer; 3) discuss new treatment options and recent trials in kidney tumors; 4) describe side effects of new targeted therapies in oncology; and 5) explain how to approach a kidney mass.

Core Competency: Medical Knowledge

Moderators:
Jan U. Becker, MD, and Gilbert W. Moeckel, MD, PhD, FASN

10:30 a.m. Pathological Diagnostics of Kidney Cancer
Michelle S. Hirsch, MD, PhD

11:00 a.m. How Do You Treat a Small Renal Mass?
Peter E. Clark, MD

11:30 a.m. Molecular Mechanisms of Kidney Cancer
Volker H. Haase, MD

12:00 p.m. Targeted Therapies in the Medical Management of Kidney Cancer
Kimryn Rathmell, MD
10:30 a.m. – 12:30 p.m.  
**Translational Session**

**Making the Connection between Transport Physiology and Common Electrolyte Disorders**

*Room 5*

Transport of numerous solutes is linked through multiple direct and indirect mechanisms. This session explores the physiologic relationships and clinical consequences of some of the more prominent of these mechanisms.

Upon completion of this session, the participant will be able to: 1) describe interactions among various electrolyte disorders; and 2) recognize clinical situations in which these interactions have pathologic and therapeutic consequences.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

*Moderators:*

Paul G. Schmitz, MD, and Arohan R. Subramanya, MD, FASN

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10:30 a.m.  
**Interactions between Acid-Base and Potassium Disorders**  
*L. Lee Hamm, MD*

11:00 a.m.  
**Interactions between Calcium, Magnesium, and Sodium Transport in the Thick Ascending Limb**  
*Hakan R. Toka, MD, PhD*

11:30 a.m.  
**K, Volume, and Aldosterone: WNKs and the Integrated Function of the DCT and CCD**  
*Paul A. Welling, MD*

12:00 p.m.  
**Ammonia and Urea Metabolism and Their Interactions with Salt and Water Balance**  
*I. David Weiner, MD*
This session explores the roles of B cells in immune responses beyond their function as antibody-producing cells, and recent findings on mechanisms by which B cells modulate immune responses are discussed. Implications of B cells at sites of inflammation and therapeutic targeting of B cells are also discussed.

Upon completion of this session, the participant will be able to: 1) describe the broader role of B cells in immune responses beyond antibody production; 2) explain mechanisms by which B cells enhance and regulate immune responses in infection, autoimmunity, and graft rejection; and 3) discuss therapeutic implications of targeting B cells.

Core Competency: Medical Knowledge

Moderators:
Michael Mengel, MD, and Joshua M. Thurman, MD

2:00 p.m. Nonclassical Roles of B Cells in Driving Immune Responses
Frances E. Lund, PhD

2:30 p.m. B Cells as Modulators of Alloimmunity and Graft Survival
Anita S. Chong, PhD

3:00 p.m. In Situ B Cells in Renal Inflammation and Graft Rejection
Marcus Clark, MD

3:30 p.m. Targeting B Cells in Glomerulonephritis: Lessons Learned
David R.W. Jayne, MD
Beyond Dialysis: Into a Brave New World

Room 5

This session provides a glimpse into the future of renal replacement therapy. Topics include growing kidneys from a scaffold and wearable dialysis devices. This session also reviews concepts such as the Kidney on a Chip and the artificial tubule.

Upon completion of this session, the participant will be able to: 1) discuss concepts behind regenerating kidneys with a functional capacity from a matrix backbone; 2) describe the current state of the art for wearable dialysis devices; 3) explain the concept of the artificial tubule; and 4) summarize benefits of “Kidney on a Chip” technology to future patients with renal disease.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Systems-based Practice

Moderators:
William Henry Fissell, MD, and H. David Humes, MD

2:00 p.m. Innovations in Dialysis Technologies
Shuvo Roy, PhD

2:30 p.m. Dialysis Miniaturization: Wearable and Implantable Artificial Kidneys
Claudio Ronco, MD

3:00 p.m. Artificial Tubules for Toxin Removal
Akira Saito, MD, PhD

3:30 p.m. Kidney on a Chip: From Toxicology to Therapeutics
Edward J. Kelly, PhD
2:00 p.m. – 4:00 p.m. Basic and Clinical Science Session

FGF23 Excess in CKD: Novel Targets of Regulation and End-Organ Effects, Including the Jack W. Coburn, MD, Endowed Lectureship

Room 6A

ASN gratefully acknowledges Amgen for support of the Jack W. Coburn, MD, Endowed Lectureship.

Supported by an independent educational grant from OPKO Renal.

Elevated fibroblast growth factor (FGF) 23 is an early and common CKD complication that may mediate an important component of the CKD-related risks of adverse outcomes. It remains unknown what triggers the initial increase in FGF23 levels in early CKD. Novel targets to safely retard off-target effects of FGF23 are also needed. This session reviews the latest developments in FGF23 biology, FGF23 regulation, FGF23 blocking, and future interventional studies.

Upon completion of this session, the participant will be able to: 1) discuss latest developments in the field of FGF23 biology; 2) describe the contribution of FGF23 transcription and cleavage to FGF23 regulation; 3) identify novel targets for blocking FGF23 activity at the myocardium; and 4) identify future interventional studies targeting novel mechanistic pathways.

Core Competency: Medical Knowledge

Moderators:
Harald Jüppner, MD, and Tally Naveh-Many, PhD

2:00 p.m. Role of DMP1 in the Regulation of FGF23 Transcription and Cleavage
Aline Martin, PhD

2:30 p.m. Novel Targets to Block FGF23 Effects in the Heart
Christian Faul, PhD

3:00 p.m. Roles of FGF23 on Erythropoiesis
Despina Sitara, PhD

3:30 p.m. Approaches to Reduce FGF23 Levels in CKD Patients—The Jack W. Coburn, MD, Endowed Lectureship
Isidro B. Salusky, MD, FASN
It’s Time to Have an Effective Therapy for AKI Already, Including the Robert W. Schrier, MD, Endowed Lectureship

Room 6B

ASN gratefully acknowledges Otsuka America Pharmaceutical, Novartis, Astellas Pharma US, and several individuals for support of the Robert W. Schrier, MD, Endowed Lectureship.

AKI is one of the most devastating complications of hospitalized individuals, and it affects approximately 10% of hospitalized patients. The basic science literature continues to grow with new pathways and therapeutic targets, but the clinical management of AKI remains largely unchanged over the last several decades. This session explores promising targets and covers optimal clinical trial design.

Upon completion of this session, the participant will be able to: 1) identify the most promising targets for AKI prevention; 2) describe trial design considerations for AKI; and 3) explain novel biomarkers of AKI and how they may be used in facilitating trials.

Core Competency: Medical Knowledge, Systems-based Practice

Moderators:
David E. Leaf, MD, FASN, and Edward D. Siew, MD

2:00 p.m. Overview of the Most Promising Therapeutic Targets for AKI Prevention and Treatment
Mark D. Okusa, MD, FASN

2:30 p.m. Endpoints for AKI Trials
Steven D. Weisbord, MD, FASN

3:00 p.m. Adaptive Trial Design for AKI Interventional Studies—The Robert W. Schrier, MD, Endowed Lectureship
Ravi I. Thadhani, MD, MPH

3:30 p.m. Why Have AKI Clinical Trials Disappointed: History and Lessons for the Future
Sarah Faubel, MD
miRNA has been studied extensively in the field of kidney disease. How to translate these findings into clinical practice remains challenging. New studies reveal that miRNA could be a good biomarker to predict the progression of kidney disease and response to therapy. miRNA could also be developed as a potential drug target for kidney disease. This session provides an update on the current research of miRNA by focusing on the application of miRNA in the diagnosis and treatment of kidney disease.

Upon completion of this session, the participant will be able to: 1) describe the basic concept of miRNA; 2) discuss the role of miRNA in kidney disease; and 3) explain the application of miRNA in the diagnosis and treatment of kidney disease.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators: Markus Bitzer, MD, and Zheng Dong, PhD, FASN

2:00 p.m.  Potential and Limitations of miRNA as Biomarkers
Thomas Tuschl, MD

2:30 p.m.  Targeting miRNA as a Therapy for Diabetic Kidney Disease
Rama Natarajan, PhD, FASN

3:00 p.m.  miRNA as Biomarkers to Predict Response to Therapy in FSGS Patients
Zhihong Liu, MD

3:30 p.m.  Noninvasive Micro-Markers for AKI
Vishal S. Vaidya, PhD
THURSDAY, NOVEMBER 5, 2015

2:00 p.m. – 4:00 p.m.  Basic and Clinical Science Session

Nephron Patterning in Fish, Birds, Mouse, and Man

Room 10

The last decade has seen an explosion in our understanding of the early events regulating nephron patterning in the developing embryo. This session discusses the fundamental mechanisms regulating nephron patterning that have been discovered using a variety of complementary model organisms, focusing specifically on the role paracrine signaling between different cellular compartments in mediating these events.

Upon completion of this session, the participant will be able to: 1) describe cellular programs that are required for proper nephron patterning; 2) discuss the role of secreted factors and cellular interactions in regulating proximal and distal fate specification of the nephron; 3) explain how model organisms are being used to study nephron patterning and specification; and 4) identify similarities and differences in embryonic kidney development across different species.

Core Competency: Medical Knowledge

Moderators:
Jonathan M. Barasch, MD, PhD, and Thomas J. Carroll, PhD

2:00 p.m.  Early Patterning Events in the Mouse Kidney
Raphael Kopan, PhD

2:30 p.m.  Retinoic Acid Signaling in Tubular Segment Specification in Zebrafish
Rebecca A. Wingert, PhD

3:00 p.m.  Wnt Signaling and Distal Nephron Specification in Chick Embryos
Thomas M. Schultheiss, MD, PhD

3:30 p.m.  Comparative Biology of Kidney Development in Mouse and Man
Andrew P. McMahon, PhD
To maintain a properly functioning kidney filtration barrier, protein networks involved in cell communication is required. Perturbations in cell signaling events can result in damage to these cells resulting in proteinuria. This session highlights the ongoing research examining cellular pathways critical for podocyte function and identifies novel therapeutic targets.

Upon completion of this session, the participant will be able to: 1) discuss inverted formins in podocyte actin regulation; 2) describe the role of rho-GTPases in podocytes; 3) explain the role of focal adhesion turnover in podocytes; and 4) describe the role of mTOR regulation in podocytes.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Systems-based Practice

Moderators:
Kirk N. Campbell, MD, and Martin R. Pollak, MD

2:00 p.m. SUPAR Signaling through Integrins
Jochen Reiser, MD, PhD

2:30 p.m. Rho-GTPases in Podocyte Biology
Peter Mundel, MD

3:00 p.m. Focal Adhesion Signaling in Podocytes
Lawrence B. Holzman, MD

3:30 p.m. Angiotensin Receptor Signaling in Podocytes
Anna Greka, MD, PhD
TRPing All Over the Kidney: It’s Not Just the Tubules

Room 2

This session focuses on function of transient receptor potential (TRP) channels in the kidney. This session discusses the role of TRPC6 in glomerulopathy, and protection from immune disease and the roles of TRP channels in tubular disease are discussed.

Upon completion of this session, the participant will be able to: 1) explain how mutations in TRPC6 lead to glomerular disease; 2) describe the role of TRPM7 in hypertension; 3) explain how TRPV4 functions as a mechanical flow inducer; and 4) discuss the role of TRP channels in PKD.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:
Stuart E. Dryer, PhD, FASN, and Johannes S. Schlondorff, MD, PhD

2:00 p.m.  How Mutations in TRPC6 Lead to Glomerular Disease
Alexander Staruschenko, PhD

2:30 p.m.  TRPM7 and Hypertension
David E. Clapham, MD, PhD

3:00 p.m.  How TRPV4 Functions as a Mechanical Flow Sensor
Oleh Pochynyuk, PhD

3:30 p.m.  Role of TRP Channels in PKD
Michael Kottgen, MD
2:00 p.m. – 4:00 p.m. Basic and Clinical Science Session

We Are Not Alone: Gut Microbiota and Kidney Disease

Room 6C

Recent studies have suggested that the gut microbiome is involved in the genesis of inflammation and oxidative stress. Changes in the composition of the microbiome may be involved in the pathogenesis of a number of disease such as obesity, hypertension, diabetes, and kidney disease. Dietary interventions are a potential approach to modulating the microbiome and decreasing risk. This session reviews the role of the microbiome in clinical disease and the potential role of diet in modulating the microbiome.

Upon completion of this session, the participant will be able to: 1) describe the role of the microbiome in clinical disease; and 2) discuss the potential role of diet in modulating the microbiome.

Core Competency: Medical Knowledge

Moderators:
Srini Beddhu, MD, and Glenda C. Gobe, PhD

2:00 p.m. Role of the Microbiome in Diabetes, Obesity, and Hypertension
Eran Elinav, MD

2:30 p.m. Microbiome and Uremic Toxins
Timothy W. Meyer, MD

3:00 p.m. Microbiome and Progression of Kidney Disease
Dominic S. Raj, MD, FASN

3:30 p.m. Microbiome and Cardiovascular Disease in Kidney Disease
W.H. Wilson Tang, MD
KDIGO: New Evidence, New Guidelines, New Processes

Room 20C/D

ASN thanks Kidney Disease Improving Global Outcomes for assistance with this session.

Supported by an independent educational grant from AstraZeneca and FibroGen.

Recently, KDIGO has issued a number of guidelines, including the management of hypertension, albuminuria, CKD-MBD, and hepatitis C in individuals with CKD. As acknowledged by the guideline authors, the quality of supporting evidence is predominantly low or moderate. This session discusses updates to KDIGO guidelines and the recent Controversies Conferences. This session also includes process discussions on how KDIGO develops and updates guidelines. The goal is to keep KDIGO guidelines “alive,” reacting, and updating to new evidence and avoiding outdated recommendations.

Upon completion of this session, the participant will be able to: 1) discuss KDIGO’s guideline updates including CKD-MBD and hepatitis C guidelines; 2) describe the KDIGO recommendations for hypertension and albuminuria in light of other guidelines; 3) explain the new KDIGO process for monitoring, updating, and disseminating guidelines; and 4) summarize the recent KDIGO Controversies Conference recommendations.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills

Moderators: Bertram L. Kasiske, MD, and Christoph Wanner, MD

2:00 p.m. New Evidence that Changes Current KDIGO Recommendations
David C. Wheeler, MD

2:30 p.m. Albuminuria as a Treatment Target in CKD: Reviewing the Current Guidelines and Evidence
Kunihiro Matsushita, MD, PhD

3:00 p.m. Keeping Guidelines Alive
Katrin Uhlig

3:30 p.m. Applying JNC8 and KDIGO Blood Pressure Recommendations in the CKD Population
Mark J. Sarnak, MD, FASN
Little Adults? Cardiovascular Disease in Pediatric CKD

Supported by an independent educational grant from AstraZeneca and FibroGen.

Cardiovascular disease (CVD) is currently the leading cause of mortality in children with CKD. This session reviews the scope of this problem in children with CKD, both before and after kidney transplant, and discusses recommendations for preventative care, including the treatment of dyslipidemia and vitamin D deficiency.

Upon completion of this session, the participant will be able to: 1) recognize the scope of the problem of CVD in children with CKD, both before and after kidney transplant; 2) apply strategies for preventative care; and 3) describe the treatment of dyslipidemia and vitamin D deficiency in CKD in children.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Tammy M. Brady, MD, PhD, and Blanche M. Chavers, MD, FASN

2:00 p.m. Epidemiology and Risk Factors for Cardiovascular Disease in CKD Children
Mark Mitsnefes, MD

2:30 p.m. Preventative Cardiovascular Disease Care in CKD Children Pre-/Post-Transplant
David K. Hooper, MD

3:00 p.m. Management of Dyslipidemia in CKD across the Age Spectrum
Jeffrey M. Saland, MD

3:30 p.m. Vitamin D Deficiency as a Risk Factor for Cardiovascular Disease
Michelle Denburg, MD
Nephrology Quiz and Questionnaire

Room 20A/B

Supported by an independent educational grant from AstraZeneca and FibroGen.

The Nephrology Quiz and Questionnaire is an interactive session that begins with a case presented by an expert, followed by several quiz questions for the audience. The topics covered include electrolytes, glomerulonephritis, transplantation, and renal replacement therapy (RRT).

Upon completion of this session, the participant will be able to: 1) describe the management of electrolyte disorders; 2) describe recent clinical advances in transplant; 3) discuss recent advances in glomerulonephritis; and 4) describe recent issues in RRT.

Core Competency: Medical Knowledge

Moderators:
Michael J. Choi, MD, and Mark A. Perazella, MD, FASN

2:00 p.m. Glomerulonephritis Cases
Andrew S. Bomback, MD, MPH

2:30 p.m. Electrolyte Cases
Mitchell H. Rosner, MD, FASN

3:00 p.m. Transplantation Cases
Michelle A. Josephson, MD

3:30 p.m. ESRD/RRT Cases
Charmaine E. Lok, MD, MPH
Novel Cardiovascular Markers in Dialysis Patients

Room 8

Cardiovascular disease and its manifestations in ESRD patients can be very different from those without CKD. Although it continues to be a leading cause of morbidity and mortality in CKD/ESRD patients, cardiovascular conditions remain difficult to properly diagnose and often elusive to manage. This session provides an update on novel cardiovascular markers and their theoretical and practical role in the diagnosis and management of the ESRD dialysis patient.

Upon completion of this session, the participant will be able to: 1) identify new measures of cardiac function and abnormalities in ESRD patients; 2) describe the impact of cardiac fibrosis on clinical outcomes; 3) discuss implications of metabolic dysfunction and the premature aging of ESRD on the heart; and 4) explain the cardiac–cerebral connection and its implications on ESRD management.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:
Charles A. Herzog, MD, and Adeera Levin, MD

2:00 p.m. Strain Analysis and Functional Approaches to Measure Cardiac Function in ESRD
Christopher T. Chan, MD

2:30 p.m. Cardiac Fibrosis and Its Relevance in ESRD
David M. Charytan, MD

3:00 p.m. Metabolic Dysfunction and Premature Aging Processes in Uremic Vasculature
Peter Stenvinkel, MD, PhD

3:30 p.m. The Cardiac–Cerebral Connection in ESRD
Christopher W. McIntyre, MD
Unraveling the mysteries of gene mutations in “experiments in nature” has led to expanded understanding of renal physiology. How have we applied this knowledge and how has that knowledge improved patient care? This session reviews broader clinical applications of key molecules for water conservation, mechanisms of action for complications of Bartter and Gitelman syndromes, the physiology of distal renal tubular acidosis (RTA) and clinical complications.

Upon completion of this session, the participant will be able to: 1) explain how key molecules for water conservation have led to broader clinical applications; 2) identify mechanisms of action for complications of Bartter and Gitelman syndromes; 3) describe the role of proximal tubular cells in albumin metabolism; and 4) discuss the physiology of distal RTA and delineate clinical complications.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Friedhelm Hildebrandt, MD, and Robert Kleta, MD, PhD, FASN

2:00 p.m. Urinary Concentration: Lessons Learned from Gene Mutations and Therapeutic Advances
Detlef Bockenhauer, MD

2:30 p.m. Bartter and Gitelman Syndromes: What Have We Learned, Where Are We Going?
Daniel Landau, MD

3:00 p.m. Proximal Tubular Cell: It’s Also about Albumin Metabolism
Bruce A. Molitoris, MD, FASN

3:30 p.m. Progress in Distal RTA: Being Short Is Not the Worst of It
Robert J. Unwin, MD, PhD
In the last decade, the incidence rates of ESRD seem to have reached a plateau, but the prevalence rate has continued to increase. This session explores the continuing trends in ESRD incidence and mortality, vascular access practices, including the current level of arteriovenous fistula use, and the use of home dialysis therapies. Early results from the USRDS Special Studies exploring factors influencing transition from CKD to renal replacement therapy and palliative care of patients with advanced CKD are also discussed.

Upon completion of this session, the participant will be able to: 1) describe possible reasons for recent trends in incidence and prevalence of ESRD in the US population; 2) discuss associations between utilization of home dialysis and patient outcomes, as well as factors affecting the frequency of use of home dialysis, that might help explain practice variations across the United States; 3) describe the epidemiology of CKD in the United States, and specifically highlight factors that promote progression from CKD to ESRD, in recognition of the critical transition period from CKD to ESRD based on data from two large US health systems; 4) discuss principles and practice of end-of-life care in ESRD patients in the United States, including the need to account for ESRD care in such planning; and 5) explain new Medicare data available on vascular access and describe current practices in the United States.
This session includes two team-based game competitions for nephrology fellows-in-training. Challenge yourself—and your peers!

First, during the Case-Based Debates interactive competition, brief information on the case is provided to two teams of fellows. The teams choose tests from a master slide to arrive at the correct diagnosis. Each ordered test has positive or negative points based on its diagnostic value. At the end, the team with the correct diagnosis gets the opportunity to describe the kidney pathology slides for bonus points. The high-scoring team wins the game—and bragging rights. The faculty moderators then close with a brief summary on the topic being reviewed.

Second, the Nephron Challenge is challenging and entertaining game, based on the U.S. game show “Jeopardy,” that tests medical knowledge and content retention—and buzzer skills. Fellows are equally divided into teams and the faculty moderator acts as host. All responses must be given in the form of a question. Points double in value in the second round. Incorrect responses reduce the team’s total points.

Novel, active learning methods complement the traditional lecture format. Educational games enhance medical knowledge and learning skills, and differ from other learning strategies as they are competitive in nature and constrained by rules and procedures. Medical educators have utilized educational games as a supplemental teaching tool in both graduate medical education and postgraduate medical training. While the impact of educational games on patient and performance outcomes needs to be determined, these enjoyable learning experiences, in addition to improving knowledge in a particular field of medicine, have been shown to enhance retention of knowledge.

Please note: CME/CNE/CPE credit will not be awarded for this activity.

2:00 p.m.  Case-Based Debates
Moderators: Kenar D. Jhaveri, MD, FASN, and Hitesh H. Shah, MD, FASN

3:00 p.m.  Nephron Challenge
Moderator: James F. Simon, MD
Kidney Health Initiative: Challenging the Status Quo

ASN thanks the Kidney Health Initiative for assistance with this session.

This session summarizes the work of the Kidney Health Initiative (KHI) over the last 3 years with a special emphasis on specific projects on CRRT pharmacokinetics (PK), clinical trial end points for lupus nephritis, and patient preferences for renal devices.

Upon completion of this session, the participant will be able to: 1) describe the goals and infrastructure of KHI, a public–private partnership between ASN and the FDA; 2) describe possible pathways for drug PK data in the setting of CRRT; 3) document details about a project on clinical trial end points for lupus nephritis; and 4) discuss the importance of patient preferences within the regulatory pathway.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Patrick Archdeacon, MD, and Ronald J. Falk, MD, FASN

2:00 p.m.  Kidney Health Initiative: A 3-Year Update
Prabir Roy-Chaudhury, MD, PhD, FASN

2:24 p.m.  CRRT Pharmacokinetics: A New Chapter
Thomas D. Nolin, PharmD, PhD, FASN

2:48 p.m.  Clinical Trial End Points for Lupus Nephritis: A Path Forward
Brad H. Rovin, MD, FASN

3:12 p.m.  Patient Preferences: From Patients to Devices to the FDA
Carolyn Y. Neuland, PhD

3:36 p.m.  Evaluation of Proteinuria Reduction as a Surrogate Endpoint in Clinical Trials in Membranous Nephropathy
Aliza M. Thompson, MD
The Shifting Landscape of Health Care Payment Models, Including the Christopher R. Blagg, MD, Lectureship in Renal Disease and Public Policy

Room 6D

ASN gratefully acknowledges the Northwest Kidney Centers and its contributors for support of the Christopher R. Blagg, MD, Lectureship in Renal Disease and Public Policy.

ASN thanks its Public Policy Board and the Renal Physicians Association for assistance with this session.

More than 4 years after President Obama signed the Affordable Care Act into law, the payment and care delivery landscape in the United States continues to evolve on numerous fronts. Meanwhile, the recognition of barriers to care within one of the most publicly visible health care systems—the Veterans Affairs Administration—has prompted integration with the private sector for veterans. This session explores three distinct trends: specialty-specific kidney care delivery models; consolidation towards large, integrated care providers; and future models on the horizon for patients with CKD.

Upon completion of this session, the participant will be able to: 1) describe recent trends in health care payment and delivery, in general and specifically related to kidney care; 2) analyze the early experiences related to nephrology-specific kidney care delivery models and consider futures for this model of care delivery; 3) assess effects of consolidation and greater care integration on patient care access and quality; and 4) future comprehensive care models that can provide care for patients with CKD and ESRD.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Systems-based Practice

Moderators:
Rebecca J. Schmidt, DO, FASN, and Suzanne Watnick, MD

2:00 p.m. Brave New World in Payment and Care Delivery—The Christopher R. Blagg, MD, Lectureship in Renal Disease and Public Policy
Shari M. Ling, MD

2:40 p.m. Pioneer Once Again: Nephrology’s Early Experience with a Disease-Specific Care Delivery Model
Diane Wish, RN

3:20 p.m. Forecasting the Nephrology Profession amid the Shifting Landscape
Edward Salsberg
2:00 p.m. – 4:00 p.m. Translational Session

**Glomerular Endothelial Cell Injury in Diabetic Nephropathy**

*Room 6F*

Endothelial cell injury may be a key factor in the development of diabetic nephropathy. This session reviews pathways involved in endothelial cell injury. It is important for us to understand early injury, which may present future targets for prevention.

Upon completion of this session, the participant will be able to: 1) describe pathways that damage the glomerular endothelial cell; and 2) identify future potential targets for prevention of diabetic nephropathy.

Core Competency: Medical Knowledge

_Moderators: Katalin Susztak, MD, PhD, and Fuad N. Ziyadeh, MD, FASN_

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<thead>
<tr>
<th>Time</th>
<th>Topic</th>
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<tr>
<td>2:00 p.m.</td>
<td>VEGF and Angiopoietin in Diabetic Nephropathy</td>
<td>Susan E. Quaggin, MD</td>
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<td>2:30 p.m.</td>
<td>Glycocalyx Damage and Diabetic Nephropathy</td>
<td>Andy Salmon, MBChB, PhD</td>
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<td>3:00 p.m.</td>
<td>Activated Protein C and Diabetic Nephropathy</td>
<td>Berend Heinrich Isermann, MD</td>
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<td>3:30 p.m.</td>
<td>ENOS and Glomerular Endothelial Cell Injury in Diabetic Nephropathy</td>
<td>Takahiko Nakagawa, MD, PhD</td>
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Kidney Disease in HIV Patients: New Spectrum in the ART Era

Room 9

Supported by an independent educational grant from AstraZeneca and FibroGen.

Since the introduction of antiretroviral therapy (ART), the incidence of HIV-associated nephropathy (HIVAN) dropped significantly. However, many HIV-infected patients still suffer from CKD, and the spectrum of kidney disease in HIV patients has changed. HIV-infected patients live much longer and are complicated with aging-related kidney diseases and drug-induced nephrotoxicity. HIV patients are able to have kidney transplantation when they reach ESRD. In addition, we have a much better understanding of the pathogenesis of HIV kidney disease, including the genetics of this disease. This session reviews HIV drug-induced nephrotoxicity, the new spectrum of kidney disease in patients with chronic HIV infection.

Upon completion of this session, the participant will be able to: 1) describe HIV drug-induced nephrotoxicity; 2) discuss the new spectrum of kidney disease in patients with chronic HIV infection; 3) explain the genetics of HIV-related kidney disease; and 4) discuss indications for kidney transplantation in HIV patients.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Patricio E. Ray, MD, and Michael J. Ross, MD, FASN

2:00 p.m. Genetics of HIV Kidney Disease
Ali G. Gharavi, MD

2:30 p.m. New Spectrum of HIV Kidney Disease in the ART Era
Christina M. Wyatt, MD

3:00 p.m. Long-Term Nephrotoxicity of Antiretroviral Therapy
Mohamed G. Atta, MD, MPH

3:30 p.m. Kidney Transplantation in HIV
Peter Stock, MD, PhD
Alternative Care Models for CKD

Room 20C/D

Supported by an independent educational grant from AstraZeneca and FibroGen.

The burden of CKD in the United States is large. Access to specialty care for patients with CKD is limited. Alternative care models that leverage technology and non-physician members of the health care team are needed to bridge the gap. This session explores the characteristics and qualities of successful models of CKD and pre-ESRD care.

Upon completion of this session, the participant will be able to: 1) discuss nontraditional models of CKD and pre-ESRD care delivery; 2) describe how new models of care intersect with patient-centeredness; 3) identify qualities of successful multidisciplinary CKD care; and 4) explain how telenephrology can enhance access to specialty expertise.

Core Competency: Professionalism, Patient Care and Procedural Skills, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Delphine S. Tuot, MD, and Jerry Yee, MD, FASN

4:30 p.m. Leveraging Technology to Identify Patients with CKD
Stacey Jolly, MD

5:00 p.m. Interdisciplinary CKD Care: The Whole Is Greater than Its Parts
Dana Rizk, MD

5:30 p.m. Cloning the Nephrologist: Advanced Practitioners for ESRD Care
Kim Zuber, PA-C

6:00 p.m. Telenephrology: Implications for Access and Quality
Elisa J. Gordon, PhD, MPH
Early to Rise and Rarely in Bed, Makes a Man Unhealthy, Unwealthy, and Dead: Causes, Consequences, and Cures for Sleep Problems in CKD Patients

Room 6B

This session provides an overview of sleep disorders in kidney disease patients, including mechanisms, epidemiology, and treatment in these populations.

Upon completion of this session, the participant will be able to: 1) identify sleep disorders that are most common in CKD, ESRD, or kidney transplant patients; 2) describe putative mechanisms underlying the most common sleep disorders in this population; 3) explain negative health consequences of, and impact of, treatment for sleep disorders in this patient population; 4) describe how sleep apnea and CKD likely have a bidirectional relationship that may depend on stage of CKD and type of sleep apnea; and 5) explain how resistant hypertension has a complex and likely bidirectional association with sleep apnea.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:
Andreas Pierratos, MD, and Sylvia E. Rosas, MD, FASN

4:30 p.m. Sleep Disorders in CKD: Epidemiology, Mechanisms, and Management
Mark L. Unruh, MD

5:00 p.m. Consequences of Sleep Disorders in CKD Patients
Manisha Jhamb, MD, MPH

5:30 p.m. Sleep Apnea: Cause or Consequence of CKD?
Muna T. Canales, MD

6:00 p.m. Sleep Apnea and Resistant Hypertension
David A. Calhoun, MD
Nonadherence in the transplant population often leads to graft dysfunction and ultimately graft loss. This session discusses the impact of nonadherence and suggests solutions on both a patient and health care system level. Additionally, strategies to predict nonadherence in those who have lost a previous graft are addressed.

Upon completion of this session, the participant will be able to: 1) explain the impact of nonadherence on the patient and the health care system; 2) discuss strategies to approach patients with nonadherence; 3) identify health care system deficiencies that promote nonadherence; and 4) describe the approach to patients with a prior history of graft loss from nonadherence.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Systems-based Practice

Moderators:
Bethany J. Foster, MD, and Karin A. True, MD, FASN

4:30 p.m.  The Problem
Oleh M. Akchurin, MD

5:00 p.m.  Solutions for the Patient
Sabina De Geest, PhD

5:30 p.m.  Solutions for the System
Jens W. Goebel, MD

6:00 p.m.  Predicting Adherence the Second Time Around
Arthur J. Matas, MD
Patient-Centered Care for the Elderly: From Palliative Care to Transplantation

Room 5

Palliative care and termination of dialysis therapy are among the most serious issues in end-of-life care in ESRD patients. This session discusses this issue in detail from the point of patient-centered medicine. Other special issues in older dialysis patients are also discussed, including rehabilitation and transplantation.

Upon completion of this session, the participant will be able to: 1) describe the status of end-of-life care of ESRD patients; 2) discuss modalities of palliative care in ESRD patients; and 3) explain the special needs and possible therapeutic modalities in older dialysis patients.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills

Moderators:
Vanessa Grubbs, MD, MPH, and Jane O. Schell, MD

4:30 p.m. Promotion and Implication of Palliative Care in ESRD Patients
Manjula Kurella Tamura, MD, MPH

5:00 p.m. Ethics of End-of-Life Care in ESRD
Alvin H. Moss, MD

5:30 p.m. Aggressive Care for Older Dialysis Patients: From Intervention to Rehab
Michael J. Germain, MD

6:00 p.m. Transplantation Options in Elderly Patients
John S. Gill, MD
Pediatric nephrologists tackle a broad range of renal problems on a daily basis. Although the developing kidney possesses unique vulnerabilities to injuries, prompt and effective therapies provide opportunities for healing and very long-term benefits. This session touches on updates in the approach to the infant requiring end-stage care, in the development of appropriate follow-up plans for the neonate with AKI, in the evaluation and treatment of the child with hypertension, and in the approach to postviral monitoring and therapies after kidney transplant.

Upon completion of this session, the participant will be able to: 1) delineate ethical and technical dilemmas in treating the infant with ESRD; 2) discuss the long-term ramifications of AKI in the neonate; 3) describe the prevalence of hypertension in the child and adolescent and propose targeted therapies; and 4) discuss the utility of viral surveillance after kidney transplant and its effect on management.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Jeffrey J. Fadrowski, MD, and Hiren P. Patel, MD

4:30 p.m. Outcomes and Dilemmas in Chronic Dialysis in Young Infants
Lesley Rees, MBChB, MD

5:00 p.m. Neonatal AKI: What to Expect down the Road
Stuart Goldberg, MD

5:30 p.m. Pediatric Hypertension: Scope of the Problem, Update on Therapies
Donald Lee Batisky, MD

6:00 p.m. Viral Surveillance Post-Transplant: Triggers for Therapy Changes and Outcomes
Vikas R. Dharnidharka, MD, MPH
AKI is common, preventable, and often reversible. The burden of AKI is particularly high in low–middle income countries (LMIC), where its incidence is poorly recognized by clinicians and often invisible to policymakers and citizens. The ISN 0 by 25 AKI Initiative aims to end preventable deaths due to AKI around the world. This session defines current initiatives regarding AKI worldwide, discusses the epidemiology of AKI around the world, discusses incorporating AKI into the global burden of disease assessment, and proposes initiatives to impact long-term improvement of AKI care.

Upon completion of this session, the participant will be able to: 1) describe the global burden of AKI and how to participate in the ISN 0 by 25 AKI Initiative; 2) discuss the epidemiology of AKI in high-income countries (e.g., United States) compared with low–middle income countries; 3) explain how AKI affects disability and productivity in the context of burden of disease; and 4) explain how new health care models can be used to prevent AKI in high and low–middle income countries.

Core Competency: Professionalism, Medical Knowledge, Systems-based Practice

Moderators: Vivekanand Jha, MD, and Raul Lombardi, MD

4:30 p.m. Global Burden of AKI: Definitions, Methods, and Perspectives
Ravindra L. Mehta, MD, FASN

5:00 p.m. Epidemiology of AKI: The Contrasting Characteristics of AKI among Different World Regions
Jorge Cerda, MD, FASN

5:30 p.m. AKI in the Context of the Global Burden of Disease
Bernadette A. Thomas, MD

6:00 p.m. Developing and Implementing Plans to Diagnose and Manage AKI Worldwide
John Feehally, MD
Upon completion of the oral abstract sessions, the participant will be able to: 1) construct new research questions based on updated scientific and clinical advances in nephrology-related disciplines; and 2) translate recent advances into new standards and approaches to clinical care of patients with kidney diseases and related disorders.

Core Competency: Medical Knowledge

**Biomarkers and Treatment Targets in Diabetic Nephropathy**

**Room 8**

**Moderators:** Nora Franceschini, MD, MPH, and Holly J. Kramer, MD

**4:30 p.m.** Dapagliflozin Reduces Albuminuria Over 2 Years in Diabetic Patients with Renal Impairment — Bergur V. Stefansson, Paola Fioretto, Eva K.A. Johnsson, Valerie A. Cain, David Sjostrom. Molndal, Sweden.

**4:42 p.m.** Structural Predictors of Loss of Renal Function in Type 2 Diabetes — Gudeta D. Fufaa, E. Jennifer Weil, Kevin V. Lemley, William Knowler, Frank C. Brosius, Berne Yee, Michael Mauer, Robert G. Nelson. Phoenix, AZ.

**5:06 p.m.** Mitotic Catastrophe in Diabetic Nephropathy — Masanori Hara, Helen Liapis. Niigata, Japan.


**5:30 p.m.** Biomarkers of Early Decline in Renal Function: A Translational Study in Type 2 Diabetes — Jennifer W. Xu, Carla Cavallin, Sona Haku, Michael S. Simonson. Fremont, CA.


**5:54 p.m.** The Impact of Pre-ESRD Glycemic Status on Early Post-ESRD Mortality Among U.S. Veterans: A Transition of Care in CKD Study — Connie Rhee, Elani Streja, Melissa Soohoo, Jennie Jing, Danh V. Nguyen, Steven M. Brunelli, Gregory Brent, Csaba P. Kovesty, Kamyar Kalantar-Zadeh. Huntington Beach, CA.

**6:06 p.m.** Glycemic Markers and 2-Year Diabetic Hemodialysis Outcomes from the Glycemic Indices in Dialysis Evaluation Study — Mark E. Williams, Neal Mittman, Lin Ma, Julia I. Brennan, Chinu M. Jani, Curtis D. Johnson, Franklin W. Maddux, Eduardo K. Lackson. Boston, MA.

THURSDAY, NOVEMBER 5, 2015

4:30 p.m. – 6:30 p.m. Oral Abstract Session

CKD Progression and Non-Kidney Outcomes

Room 6E

Moderators: Milos N. Budisavljevic, MD, and Sriram Narasipur, MD, FASN


4:54 p.m. CKD and Risk for Gastrointestinal Bleeding: The Atherosclerosis Risk in Communities (ARIC) Study — Junichi Ishigami, Morgan Grams, Rakhi Naik, Josef Coresh, Kunihito Matsushita. Tokyo, Japan.


5:30 p.m. Increased Risk of Incident Chronic Kidney Disease, Cardiovascular Disease and Mortality in Diabetic Patients with Comorbid Depression — Miklos Zsolt Molnar, Marta Novak, Istvan Mucsi, Jun Ling Lu, Kamyar Kalantar-Zadeh, Csaba P. Kovesdy. Toronto, Canada.

5:42 p.m. Cardiorespiratory Fitness and Neurocognitive Function in Older Adults with Chronic Kidney Disease — Daniel E. Weiner, Lindsay J. Lajoie, Eamon F. Fleming, Dylan R. Kirn, Shari R. Waldstein, Jason Kissner, Kieran Reid, Roger A. Fielding, Stephen L. Seliger. Boston, MA.

5:54 p.m. Low Birth Weight and Risk of Progression to End Stage Renal Disease in IgA Nephropathy — Paschal Joseph Ruggajo, Einar Svarstad, Sabine Leh, Hans-Peter Marti, Anna Reisaeter, Bjørn Egil Vikse. Haugesund, Norway.

6:06 p.m. Risks of End-Stage Renal Disease (ESRD) in the United States — Patrick J. Albertus, Hal Morgenstern, Bruce M. Robinson, Rajiv Saran. Ann Arbor, MI.

Clinical Glomerular and Tubulointerstitial Disorders: Insights into Lupus, Vasculitis, IgA, and Preeclampsia

Moderators:
Rolf A. Stahl, MD, and Michael Walsh, MD, PhD

4:30 p.m. – 6:30 p.m.

Oral Abstract Session

Room 1

4:30 p.m. The Significance of Urinary Podocalyxin Level and Urinary Podocyte Number in Lupus Nephritis: A Longitudinal Study — Keiju Hiromura, Hiroshi Kajiyama, Hidekazu Ikeuchi, Junya Suwa, Daisuke Ikuma, Toru Sakairi, Yorikai Kaneko, Akito Maeshima, Hiroyuki Kurosawa, Yoshiaki Hirayama, Masanori Hara, Toshiohide Mimura, Yoshitsuka Nojima, Maebashi, Japan.

4:42 p.m. Mycophenolate Mofetil, Azathioprine and Intravenous Cyclophosphamide Are Effective for Treatment of Pure Membranous Lupus Nephritis in Hispanic Population — Juan M. Mejia-Vilet, Ricardo Correa-Rotter, Mexico, Mexico.

4:54 p.m. Impact of Tabalumab on the Kidney in Lupus: Results from Two Phase 3 Clinical Trials — Brad H. Rovin, Mary Anne Dooley, Jai Radhakrishnan, Ellen M. Ginzel, Tammy Forrester, Pamela W. Anderson, Columbus, OH.

5:06 p.m. Evaluation and Validation of a Biomarker Panel in ANCA-Associated Renal Vasculitis — Andreas Kronbichler, Julia Kerschbaum, Georg Grundlinger, Johannes Leierer, Gert J. Mayer, Michael Rudnicki, Innsbruck, Austria.

5:18 p.m. Randomized Controlled Trial of Treatment Withdrawal in the Remission Phase of ANCA Vasculitis: The REMAIN Study — Alexandre Karras, Marten Segelmark, David R.W. Jayne, Paris, France.

5:30 p.m. Pharmacogenetics of Rituximab in ANCA Associated Vasculitis — Federico Alberici, Rona M. Smith, Rosanna Coppo, Ian Roberts, John Feehally, Vancouver, BC, Canada.

5:42 p.m. The MEST Score in IgA Nephropathy: Implications for Clinical Management — Sean Barbour, Gabriela Espino-Hernandez, Heathceter N. Reich, John Feetham, Vancouver, Canada.

5:54 p.m. Effects of Tonsillectomy Combined with Steroid Pulse Therapy upon IgA Nephropathy Depending on Proteinuria Status at Diagnosis — Hiroyuki Komatsu, Shouichi Fujimoto, Yuji Sato, Akhiro Fukuda, Yoshinari Yasuda, Tetsuya Kawamura, Seiichi Matsuo, Miyazaki, Japan.

6:06 p.m. Pregnancy and IgA Nephropathy: Renal, Maternal and Fetal Outcomes — Sehoon Park, Kyung Don Yoo, Dong Ki Kim, Won Wook Joo, Chun Soo Lim, Seul, South Korea.

6:18 p.m. Semaphorin 3F (SEMA3F) Expression Is Reduced in Pregnancy Complicated by Preeclampsia (PE) — Giovanni Stellone, Adelaide Di Lorenzo, Giuseppe S. Netti, Barbara Infante, Francesca Bruno, Pantaleo Greco, Maria Matteo, Stefania Carlucci, Federica Trezza, Giuseppe Grandalino, Foggia, Italy.
4:30 p.m.  Efficacy in Diabetic Nephropathy in a Phase 2 Clinical Trial of Chemokine Receptor 2 Inhibitor CCX140-B — Richard J. Glassock, Elena Henkel, Heidrun Mehling, Christoph Hasslacher, Ioanna Gouni-Berthold, Vladimir Tesar, Antonia Potarca, Pirow Bekker, Thomas J. Schall. Laguna Niguel, CA.


4:54 p.m.  Selective Inhibition of CCR2/5 Chemokine Receptors Reduces Macroalbuminuria in Subjects with Type 2 Diabetes and Overt Nephropathy — Jeremy D. Gale, Steven A. Gilbert, Samuel S. Blumenthal, Tom Elliott, Pablo E. Pergola, Kosalaram Goteti, Douglas Girgenti, Willem H. Scheele, Robert Webster, Christelle Huguet Perros. Cambridge, MA.

5:06 p.m.  Baricitinib in Diabetic Kidney Disease: Biomarker Analysis from a Phase 2, Randomized, Double-Blind, Placebo-Controlled Study — Frank C. Brosius, Katherine R. Tuttle, Sharon G. Adler, Matthias Kretzler, Ravindra L. Mehta, James A. Tumlin, Kevin L. Duffin, Joseph V. Haas, Jiajun Liu, Maria E. Silk, William Macias, Jonathan M. Janes. Ann Arbor, MI.

5:18 p.m.  Patiromer Lowers Serum K+ and Prevents Recurrent Hyperkalemia in CKD Patients ≥65 Years of Age on RAAS Inhibitors — Matthew R. Weir, David A. Bushinsky, Martha Mayo, Dahlia Garza, Yuri Stasiv, Daniel J. Wilson, Susan Arthur, Lance Berman, George L. Bakris. Baltimore, MD.

5:30 p.m.  The Microalbuminuria Intervention Study: Effects of Different Losartan Combination Antihypertensive Therapy in Patients with CKD, MIDLAND-CKD — Yoshinari Yasuda, Takeyuki Hiramatsu, Seiichi Matsuo, Shoichi Maruyama. Nagoya, Japan.

5:42 p.m.  Blood Pressure and Renal Outcomes in Diabetic Kidney Disease: Results from the VA NEPHRON-D Trial — David J. Leehey, Jane Hongyuan Zhang, Nicholas Emanuele, Adam Whaley-Connell, Paul M. Palevsky, Robert F. Reilly, Peter Guarino, Linda F. Fried. Oak Park, IL.


6:06 p.m.  Anemia Correction with Roxadustat Improves Health Related Quality of Life (HRQOL) in Chronic Kidney Disease (CKD) Patients — Lynda Szczech, Stefan Henmerich, Anatole Besarab, Khalil Georges Saikali, Lona Poole, Kin-Hung Peony Yu, Thomas B. Neff. Durham, NC.

4:30 p.m. – 6:30 p.m. Oral Abstract Session

Engineering Stem Cells

Room 23

Moderators: Thomas J. Carroll, PhD, and Zubaida R. Saifudeen, PhD

4:30 p.m. Isolation of Live Nephron Progenitors Cells Expressing Six2+ and Cited1+ from TH-OR041 Human Embryonic Kidneys and Amniotic Fluid — Laura Perin, Stefano Da Sacco, Astgik Petrosyan, Matthew Edward Thornton, Brendan Grubbs, Roger E. De Filippo. Los Angeles, CA.


4:54 p.m. Pluripotent, Non-Tumorigenic, Human Muse Cells Integrate into Glomerulus to Recover TH-OR043 Function in a Chronic Kidney Disease Mouse Model — Nao Uchida, Naonori Kumagai, Yoshiaki Kondo, Shigeo Kure. Sendai, Japan.

5:06 p.m. Patient-Derived Induced Pluripotent Stem Cell (iPSC) Modelling of Genetic Renal Disease (GRD) — Andrew John Mallett, Barbara Maier, Pei Xuan Er, Minoru Takasato, Jane Sun, Ernst J. Wolvetang, Stephen I. Alexander, Cas Simons, Melissa H. Little. Windsor, Queensland, Australia.


5:30 p.m. A Developmentally Plastic Adult Mouse Kidney Cell Line Spontaneously Generates Multiple TH-OR046 Adult Kidney Structures — Tomoko Obara. Oklahoma City, OK.


5:54 p.m. Invited Lecture: Generation of Self Organizing Kidneys from Pluripotent Stem Cells — Melissa H. Little, PhD
### Genetics of Renal Cystic Disease

**Moderators:** Pamela Vivian Tran, PhD, and Darren P. Wallace, PhD

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors and Affiliations</th>
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<tbody>
<tr>
<td>4:30 p.m.</td>
<td>Systems Biology of Polycystic Kidney Disease Suggests It Is a Metabolic Disease</td>
<td>Luis F. Menezes, Fang Zhou, Gregory G. Germino. Bethesda, MD.</td>
</tr>
<tr>
<td>4:42 p.m.</td>
<td>Smyd2 Synergistically Activates STAT3 and NF-κB and Represses p53 to Promote Cyst Growth</td>
<td>Xiaoyan Li, Lucy Fan, Xia Zhou, James P. Calvet, Xiaogang Li. Kansas City, KS.</td>
</tr>
<tr>
<td>4:54 p.m.</td>
<td>Novel Insights into Polycystin-1 Function from the Xenopus Pronephric Kidney</td>
<td>Oliver Wessely, Uyen Tran. Cleveland, OH.</td>
</tr>
<tr>
<td>5:06 p.m.</td>
<td>A Forward Genetic Screen Identifies a Calcium-Regulated Mitochondrial Metabolite Carrier as a Downstream Target of Polycystin-2</td>
<td>Alexis Hofherr, Claudia Seger, Terry J. Watnick, Michael Kottgen. Freiburg im Breisgau, Germany.</td>
</tr>
<tr>
<td>5:18 p.m.</td>
<td>Modeling Polycystic Kidney Disease Cystogenesis with Genome-Modified Human Pluripotent Stem Cells</td>
<td>Benjamin S. Freedman, Theodore I. Steinman, Jing Zhou, Joseph V. Bonventre. Seattle, WA.</td>
</tr>
<tr>
<td>5:30 p.m.</td>
<td>Inactivation of Ift88 Gene Rescues the Phenotype in a Genetic Model of Autosomal Dominant Polycystic Kidney Disease</td>
<td>Jing Zhou, Wassim El-Jouni, Xiaogang Shen, Maoqing Wu, Ivan Barrera, Azadeh Tabari, Nadeem Haque, Ilyas Yambayev. Boston, MA.</td>
</tr>
<tr>
<td>5:42 p.m.</td>
<td>Other Signaling Pathways Rapidly Compensate for Loss of mTORC1 in Driving Cystic Kidney Disease</td>
<td>Florian Grahammer, Gerd Walz, Tobias B. Huber. Freiburg, Germany.</td>
</tr>
<tr>
<td>6:06 p.m.</td>
<td>SDCCAG8 Regulates Ciliogenesis by Mediating Endosomal Vesicle Docking to the Basal Body</td>
<td>Merlin Airik, Rannar Airik, Jang W. Cho, Markus Schueler, Friedhelm Hildebrandt. Cheswick, PA.</td>
</tr>
<tr>
<td>6:18 p.m.</td>
<td>Characterization of Cystic Kidneys in Mice Deficient in the Polarity Proteins DLG1 and CASK</td>
<td>Steven Daniel Funk, Jinzhi Wang, Moe Mahjoub, Jeffrey H. Miner. St. Louis, MO.</td>
</tr>
</tbody>
</table>
4:30 p.m. – 6:30 p.m. Oral Abstract Session

**Hemodialysis Vascular Access: Can We Do Better?**

*Room 24*

**Moderators:**
Alfred K. Cheung, MD, and Prabir Roy-Chaudhury, MD, PhD, FASN

<table>
<thead>
<tr>
<th>Time</th>
<th>Presentation Title</th>
<th>Authors</th>
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</thead>
<tbody>
<tr>
<td>4:30 p.m.</td>
<td>Serum Leptin, Pre-Existing Vascular Disease, and Arteriovenous Fistula Maturation</td>
<td>Jwa-kyung Kim, Sun Ryoung Choi, Mi Jin Park, Sung Gyun Kim. Seoul, South Korea.</td>
</tr>
<tr>
<td>4:42 p.m.</td>
<td>Time-Dependent Endothelial Dysfunction following Arteriovenous Fistula Creation</td>
<td>Timmy C. Lee, Jennifer S. Pollock. Birmingham, AL.</td>
</tr>
<tr>
<td>5:06 p.m.</td>
<td>The Effect of Far Infrared Therapy on the Maturation of Newly-Created Arteriovenous Fistula and the Parameters of Inflammation, Endothelial Function and Oxidative Stress in Patients with Advanced Chronic Kidney Disease</td>
<td>Chih-Ching Lin. Taipei City, Taiwan.</td>
</tr>
<tr>
<td>5:18 p.m.</td>
<td>Use of Arteriovenous Fistula/Graft Access for Continuous Renal Replacement Therapy: A Single Center Experience</td>
<td>Anas Al Rifai, Nidhi Sukul, Michael Heung. Ann Arbor, MI.</td>
</tr>
<tr>
<td>5:30 p.m.</td>
<td>Improvements in Time to Fistula Use in Incident Hemodialysis Patients in the Rapid Response Pilot Program</td>
<td>Karen G. Butler, John W. Larkin, Deborah J. Brouwer-Maier, Sandra Bodin, Michelle G. Gilliland, Michele Inglese, Lillian A. Pryor, Len A. Usyvat, Dugan Maddux, Franklin W. Maddux. Waltham, MA.</td>
</tr>
<tr>
<td>5:42 p.m.</td>
<td>Impact of Poverty and Health Care Insurance on Arteriovenous Fistula Use Among Incident Hemodialysis Patients</td>
<td>Deepti S. Moon, Rahul M. Jindal, Frank P. Hurst, Christina M. Yuan, Lawrence Agodoa, Kevin C. Abbott, Robert Nee. North Bethesda, MD.</td>
</tr>
<tr>
<td>5:54 p.m.</td>
<td>Invited Lecture: Why Don’t We Have Better Therapies for Dialysis Vascular Access Dysfunction?</td>
<td>Michael Allon, MD</td>
</tr>
</tbody>
</table>
4:30 p.m. – 6:30 p.m.  Oral Abstract Session

**Immunologic Mechanisms of Rejection and Kidney Injury**

**Room 10**

**Moderators:**

*Sashi Kasimsetty, PhD, and Dianne B. McKay, MD*

<table>
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<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
<th>Location</th>
</tr>
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<tbody>
<tr>
<td>4:42 p.m.</td>
<td>Spliced XBP1 Rescues Renal Interstitial Inflammation due to Loss of Sec63 in Collecting Ducts</td>
<td>Yasunobu Ishikawa, Sorin V. Fedele, Rachel Gallagher, Stefan Somlo.</td>
<td>East Haven, CT.</td>
</tr>
<tr>
<td>4:54 p.m.</td>
<td>Specific Deletion of Rictor in Macrophages Ameliorates Macrophage Activation and Obstructive Nephropathy in Mice</td>
<td>Jiafa Ren, Chunsun Dai.</td>
<td>Nanjing, China.</td>
</tr>
<tr>
<td>5:06 p.m.</td>
<td>Non-HLA Antibodies Targeting Angiotensin II Type 1 Receptor and Endothelin-1 Type A Receptor Induce mTOR Signaling and Endothelial Injury in Human Microvascular Endothelium</td>
<td>Duska Dragun, Oskar Wischnewski, Rusan Catar, Angelika Kusch.</td>
<td>Berlin, Germany.</td>
</tr>
<tr>
<td>5:18 p.m.</td>
<td>Memory Effector T Cells and OX40 Signaling Could Contribute to Chronic T-Cell Mediated Rejection</td>
<td>Claudia Curci, Fabio Stallustio, Grazia Serino, Giuseppe De Palma, Mirko Tipjevski, M. Rossini, Loreto Gesualdo, Marco Quaglia, Paolo Rigotti, Francesco Paolo Schena.</td>
<td>Valenzano, Italy.</td>
</tr>
<tr>
<td>5:30 p.m.</td>
<td>Dendritic Cell-Targeted CD40 DNA Vaccination Suppresses Th17 and Ameliorates Renal Injury in Experimental Autoimmune Glomerulonephritis</td>
<td>Qing Li, Qi Cao, Chengshi Wang, Xin M. Wang, Yuan Min Wang, Stephen I. Alexander, Yiping Wang, David C. Harris.</td>
<td>Hefei, China.</td>
</tr>
<tr>
<td>5:54 p.m.</td>
<td>A Novel IL-2 and IL-33 Hybrid Cytokine for Lupus Glomerulonephritis (GN) Therapy</td>
<td>Rahul Sharma, Marta Strembska, Chao Dai, Hongyang Wang, Saleh Mohammad, Sheethal Jose, Sun-sang J. Sung, Shu man Fu.</td>
<td>Charlottesville, VA.</td>
</tr>
<tr>
<td>6:06 p.m.</td>
<td>Interleukin-27 Has Potential Predictive Role in the Onset of Post-Transplant Malignancies</td>
<td>Paola Pontrelli, F. Rascio, Giovanni Stallone, Matteo Accetturo, Margherita Gigante, Giuseppe Castellano, Barbara Infante, Gianluigi Zaza, Loreto Gesualdo, Giuseppe Grandaliano.</td>
<td>Bari, Italy.</td>
</tr>
<tr>
<td>6:18 p.m.</td>
<td>Translation of Anti-Fibrotic MicroRNA Strategies into a Mouse Model of Chronic Allograft Dysfunction</td>
<td>Celina Schauerte, Song Rong, Michael Mengel, Hermann G. Haller, Thomas Thum, Johan Lorenzen.</td>
<td>Hannover, Germany.</td>
</tr>
</tbody>
</table>
4:30 p.m. – 6:30 p.m. Oral Abstract Session

Na+, K+, and Cl- Basic Science

Room 2

Moderators:
Pablo A. Ortiz, PhD, and Paul A. Welling, MD

4:30 p.m. Regulation of the Apical Cotransporter NKCC2 by a Novel Kinase: TNIK — Paulo S. Caceres, Pablo A. Ortiz. Detroit, MI.


4:54 p.m. Inhibition of Mitochondrial Complex-1 Prevents the Downregulation of NKCC2 and ENaC in Obstructive Nephropathy — Zhanjun Jia, Yue Zhang, Ying Sun, Guixia Ding, Songming Huang, Aihua Zhang. Salt Lake City, UT.

5:06 p.m. NLRP3 Inflammasome Activation Confers the Resistance to Loop Diuretics in Proteinuric Kidney Disease — Aihua Zhang, Yibo Zhuang, Guixia Ding, Songming Huang, Zhanjun Jia. Nanjing, China.


5:30 p.m. Generation and Analysis of Knock-In Mice Carrying Pseudohypoaldosteronism Type II-Causing Mutations in the Cullin 3 Gene — Yuya Araki, Tatemitsu Rai, Elisei Sohara, Takayasu Mori, Yuichi Inoue, Eriko Kikuchi, Shinichi Uchida. Tokyo, Japan.

5:42 p.m. Disruption of SPAK/OSR1 Reveal Their Critical Roles in Potassium Homeostasis — Mohammed Zubaerul Ferdaus, Andrew Terker, James A. McCormick. Portland, OR.

5:54 p.m. Inducible Kidney-Specific KCNJ10 Knockout Mice Show a Salt Losing Phenotype — Catherina A. Cuevas, James A. McCormick, Andrew Terker, Chao-Ling Yang, WenHui Wang, David H. Ellison. Portland, OR.

6:06 p.m. HIV Vpr Antagonizes Mineralocorticoid Receptor Activity, Explaining Salt Wasting — Koji Okamoto, Hewang Lee, Jeffrey B. Kopp, Shashi Shrivastav. Bethesda, MD.

6:18 p.m. The Sodium/Proton Exchanger NHA2 Is a Novel Regulator of Sodium, Calcium and Blood Pressure Homeostasis in the Distal Convoluted Tubule of the Kidney — Manuel Andreas Anderegg, Giuseppe Albano, Ganesh Pathare, Daniel G. Fuster. Bern, Switzerland.
4:30 p.m. – 6:30 p.m. Oral Abstract Session

Podocytes and Beyond: New Targets and Mechanisms of Injury

Room 26

Moderators:
Charles E. Alpers, MD, and Katalin Susztak, MD, PhD

4:30 p.m. Transgenic Mice Expressing APOL1-G0 or APOL1-G2 in Podocytes Do Not Develop Kidney Disease — Leslie A. Bruggeman, Zhenzhen Wu, Liping Luo, Sethu M. Madhavan, Martha Konieczkowski, Paul E. Drawz, L. Barisoni, John R. Sedor, John F. O’Toole. Cleveland, OH.

4:42 p.m. Kidney Disease Associated Variants of Apolipoprotein L1 Changes Conformational Dynamics of the C-Terminal Domain — Sethu M. Madhavan, John F. O’Toole, Martha Konieczkowski, Zhenzhen Wu, Yaping Gu, Leslie A. Bruggeman, Matthias Buck, John R. Sedor. Cleveland, OH.

4:54 p.m. SS-31, a Peptide Targeting Mitochondria, Restores Podocytes in Diabetic Nephropathy (DN) in BTBR ob/ob Mice — Minseob Eom, Anna Batorsky, Hazel H. Szeto, Dao-fu Dai, Kelly L. Hudkins, Charles E. Alpers. Seattle, WA.

5:06 p.m. Genetic and Pharmaceutical Targeting of GSK3β in Podocytes Reinforces the Nrf2 Antioxidant Response and Ameliorates Podocytopathy and Proteinuria — Sijie Zhou, Yan Ge, Zhangsuo Liu, Rujun Gong. Providence, RI.


5:30 p.m. Blockade of Wnt/β-Catenin Signaling Exhibits Superior Therapeutic Efficacy Than RAS Inhibition in CKD — Zhen Li, Lili Zhou, Xue Hong, Youhua Liu. Guangzhou, China.

5:42 p.m. Distinct Populations of FOXD1-Derived Renal Interstitial Cells Regulate Erythropoietin Production — Hanako Kobayashi, Volker H. Haase. Nashville, TN.

5:54 p.m. microRNA-21 in Human Glomerular Aging — Christopher Lund O’Connor, Yifan Wu, Jeffrey B. Hodgkin, Markus Bitzer. Ann Arbor, MI.


6:18 p.m. The Bone Marrow Initiates and Propagates suPAR-Mediated Kidney Disease — Eunsil Hahm, Changli Wei, Isabel Fernandez, Jing Li, Nicholas J. Tardi, Shikha Wadhwani, Vineet Gupta, Sanja Sever, Jochen Reiser. Chicago, IL.
4:30 p.m. – 6:30 p.m. Oral Abstract Session

Probing the Injured Kidney: Mechanisms in AKI

Room 6D

Moderators:
Volker H. Haase, MD, and Jonathan Street, PhD

4:30 p.m. C-Reactive Protein and Myeloid Derived Suppressor Cells in Acute Kidney Injury —
TH-OR095
Alexander J. Szalai, Melissa A. Pegues. Birmingham, AL.

4:42 p.m. C-Reactive Protein Promotes AKI by Impairing TEC Regeneration via the CD32-Smad3-P27
TH-OR096

4:54 p.m. Peptidyl Arginine Deiminase-4 Exacerbates Ischemic Acute Kidney Injury by Finding
TH-OR097
TH-OR098

5:06 p.m. Severity, Frequency and Prevalence of Proximal Tubule Injury Determines Renal
TH-OR098
Prognosis — Koji Takaori, Jin Nakamura, Tadashi Yamamoto, Kumar Sharma, Motoko Yanagita.

Kyoto, Japan.

5:18 p.m. Proximal Tubule Necroptosis Is Mediated by Mixed Lineage Kinase Domain Like (MLKL) In
TH-OR099
Vivo and Ex Vivo — Andreas Linkermann, Nina Himmerkus, Ina Maria Schiessl, Hans J. Anders, Joel M. Weinberg, Alberto Ortiz, James M. Murphy, Ulrich Kunzendorf, Jan H. Braesen, Markus Bleich, Stefan Krautwald. Kiel, Germany.

5:30 p.m. NMN, a NAD+ Precursor, Can Rescue the Age-Associated Susceptibility to Cisplatin
TH-OR100
Induced Acute Kidney Injury in a SIRT1-Dependent Manner — Yi Guan, Chuanming Hao.

Shanghai, China.

5:42 p.m. Therapeutic Effects of BB3, a Small Molecule Hepatocyte Growth Factor Mimetic, in
TH-OR101

5:54 p.m. CRP Exacerbates Ischemia-Reperfusion Injury in the Kidney by Down-Regulating
TH-OR102
Autophagy — Ao Bian, Mingjun Shi, Brianna Flores, Nancy Gillings, Orson W. Moe, Ming Chang Hu. Dallas, TX.

6:06 p.m. Signal Inhibitory Regulatory Protein-α Regulates Pathologic Reactive Oxygen Species
TH-OR103

6:18 p.m. “Urine Sediment” the Ignored Treasure Chest in the Search for Biomarkers in Acute Kidney
TH-OR104
**Recent Developments in Phosphate, FGF-23, and Klotho Biology**

*Room 6C*

**Moderators:**
Susan C. Schiavi, PhD, and Myles S. Wolf, MD

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<td>4:30 p.m.</td>
<td>FGF23 Drives Progression of Chronic Kidney Disease in Mice</td>
<td>Olena Andrukhova, Svetlana Slavic, Sathish Kumar Murali, William G. Richards, Reinhold Erben. Vienna, Austria.</td>
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<td>4:42 p.m.</td>
<td>In Vivo Role of Klotho in the Renal Proximal Tubules</td>
<td>Noriko Ide, Hannes Olauson, Tadatoshi Sato, Junichiro Hanai, Tobias E. Larsson, Beate Lanske. Boston, MA.</td>
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<td>4:54 p.m.</td>
<td>The Increased Bone Fibroblast Growth Factor 23 Expression Is Mediated by the Fibroblast</td>
<td>Ronen Levi, Alia Hassan, Karina Durlacher, Justin Silver, Tally Naveh-May. Jerusalem, Israel.</td>
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<td>5:06 p.m.</td>
<td>Acute and Chronic Inflammation Raise the Blood Levels of FGF23 in Normal Mice</td>
<td>Shweta Bansal, William E. Friedrichs, Chakradhar Velagapudi, Sherry L. Werner, Paolo Fanti. San Antonio, TX.</td>
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<td>5:30 p.m.</td>
<td>Uremia</td>
<td>Maren Leifheit-Nestler, Laura Hermann, Dagmar-Christian Fischer, Dieter Haffner. Hannover, Germany.</td>
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<td>5:54 p.m.</td>
<td>Downregulation of Thrombomodulin Expression in Endothelial Cells by Fibroblast</td>
<td>Kenji Tanaka, Yoko Oyama, Tancharoen Salunya. Kashihara, Nara, Japan.</td>
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<td>6:06 p.m.</td>
<td>Iron Status Affects FGF23 Production and Metabolism in Mice with Chronic Kidney</td>
<td>Mark Hanudel, Kristine Joy Chua, Katherine Wesseling-Perry, Elizabeta Nemeth, Tomas Ganz, Isidro B. Salusky. Los Angeles, CA.</td>
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<td>6:18 p.m.</td>
<td>Tenapanor, an NHE3 Inhibitor, Reduces Serum Phosphate in Patients with CKD Stage</td>
<td>Geoffrey A. Block, David P. Rosenbaum, Maria Leonsson Zachrisson, Magnus Åstrand, Susanne Johansson, Mikael Knutsson, Anna Maria Langkilde. Denver, CO.</td>
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4:30 p.m. – 6:30 p.m. Oral Abstract Session

Targeting Cardiovascular Health and Function in CKD

Room 9

Moderators:
John Paul Middleton, MD, and Amy K. Mottl, MD

4:30 p.m. Racial Differences in Association of Serum Calcium with Mortality and Incident Cardio- and Cerebrovascular Events — Jun Ling Lu, Miklos Zsolt Molnar, Jennie Z. Ma, Lekha K. George, Kamyar Kalantar-Zadeh, Csaba P. Kovesdy. Memphis, TN.

4:42 p.m. Relevance of LDL Cholesterol and C-Reactive Protein to Cardiovascular Risk Among Patients with Chronic Kidney Disease — Results from the Study of Heart and Renal Protection — Ben Storey. Oxford, United Kingdom.

4:54 p.m. Utilization of Statin Medications in Non-Dialysis Dependent Chronic Kidney Disease (CKD) Patients — Holly J. Kramer, Talar Markoskian, Nicholas Burge, Benjamin Ling, Julia Koval, David J. Leehey, Kevin Stroupe. Maywood, IL.


5:30 p.m. Aryl Hydrocarbon Receptor Is Activated during Chronic Kidney Disease and Is Associated with Mortality — Stephanie Burtey, Laetitia Dou, Marion Sallée, Claire Cerini, Noemie Jourde-chiche, Bertrand Gondouin, Michael S. Denison, Philippe Brunet. Marseille, France.


5:54 p.m. Endogenous Klotho Is Expressed in Human Heart and May Associated with Fibrosis — Qinghua Liu, Tzongshi Lu, Qyling Dai, David M. Charytan, Daniel Zehnder, Li-Li Hsiao. Brookline, MA.

6:06 p.m. Circulating TNF Receptors Predicts Cardiovascular Disease in CKD Patients — Eunjin Bae, Jung Nam An, Jin Ho Hwang, Dong Ki Kim, Chun Soo Lim, Jung Tak Park, Shin-Wook Kang, Yun So Kim, Jung Pyo Lee. Seoul, South Korea.

FRIDAY, NOVEMBER 6, 2015

AMERICAN SOCIETY OF NEPHROLOGY
KIDNEY WEEK 2015
DAY-AT-A-GLANCE

6:45 a.m. – 7:45 a.m.  Educational Symposia

Please refer to the Guide to Educational Symposia for titles and locations.
Doors will open at 6:30 a.m. Breakfast will be provided.
Limited seating; first-come, first-served to fully paid Annual Meeting participants.
Manchester Grand Hyatt

8:00 a.m. – 9:30 a.m.  Plenary Session

Page 70  ASN Foundation for Kidney Research Founders Circle Member Recognition, Kidney Week Planning Committees Recognition, Homer W. Smith Award Presentation and Address, State-of-the-Art Lecture
Hall D

9:30 a.m. – 10:00 a.m.  Morning Break

Exhibit Halls B-C

9:30 a.m. – 2:30 p.m.  Scientific Exposition

Exhibit Halls B-C

9:30 a.m. – 4:30 p.m.  Posters

Exhibit Halls A-B
Authors will be available at their posters 10:00 a.m. – 12:00 p.m.

10:30 a.m. – 12:30 p.m.  Basic and Clinical Science Sessions

Page 72  From Systems Biology to Personalized Medicine
Room 6C
Page 73  Love Thy Neighbor: The Relationship between Principal and Intercalated Cells
Room 1

10:30 a.m. – 12:30 p.m.  Clinical Practice Sessions

Page 74  Hot Topics in CKD–MBD: Where Do We Stand in 2015 in Management of Bones and Minerals
Room 20C/D
Page 75  Hot Topics in Hypertension
Room 5
Page 76  IgA: Why, What Now, What's Next?
Room 20A/B
Page 77  Peritoneal Dialysis Update: Notable Advances
Room 6A
Page 78  Renal Consults from the Oncology Floor
Room 6B

10:30 a.m. – 12:30 p.m.  Special Session

Page 79  Board Certification and Recertification Forum
Room 6D

10:30 a.m. – 12:30 p.m.  Translational Session

Page 80  Complement Appreciated! A Redefined Role in Graft Injury and an Opportunity for Novel Therapies
Room 6F

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12:30 p.m. – 2:00 p.m. Lunch Break

12:45 p.m. – 1:45 p.m. Educational Symposia

Please refer to the Guide to Educational Symposia for titles and locations. Doors will open at 12:30 p.m. Lunch will be provided. Limited seating; first-come, first-served to fully paid Annual Meeting participants.

Manchester Grand Hyatt

12:45 p.m. – 1:45 p.m. Basic and Clinical Science Session

Page 81 Basic Science Symposium: Live Cell-Fluorescent Biosensors
Manchester Grand Hyatt

2:00 p.m. – 4:00 p.m. Basic and Clinical Science Sessions

Page 82 Advances in Understanding Klotho Biology in CKD
Room 6A
Page 83 Clinical Utility of Traditional and Novel Cardiac Biomarkers in CKD Patients
Room 6B
Page 84 ER Stress in the Kidney
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Page 85 Extrarenal Mechanisms for Hypertension and Cardiovascular Disease
Room 25
Page 86 Functional Integration of Cellular Compartments during Kidney Development
Room 10
Page 87 Glomerular Interactions with the Hemostasis System: Novel Targets and Approaches in Glomerular Disease
Room 6F
Page 88 Ions, Channels, and Immunity
Room 6E
Page 89 Lost in Translation: AKI Preclinical Models
Room 2
Page 90 Mitochondrial Regulation in the Glomerulus
Room 23
Page 91 Polycystins Function: Lessons from the Polycystin-Like Proteins
Room 8
Page 92 The Genome: Natural and Unnatural Modifications
Room 24
Page 93 Toxins Still Need to Be Removed in Dialysis Patients
Room 7

2:00 p.m. – 4:00 p.m. Clinical Practice Sessions

Page 94 Drug-Induced Renal Biopsy Pathology
Room 5
Page 95 ESRD Outcomes Databases: How Should Data Guide Policy?
Room 6D
Page 96 Kidney Stones in Children and Adults
Room 20C/D

2:00 p.m. – 4:00 p.m. Special Session

Page 97 Nephrology Faculty Development 2015: Expanding Your Teaching Repertoire
Room 1

2:00 p.m. – 4:00 p.m. Translational Sessions

Page 98 Drug Repurposing in Kidney Disease
Room 26
Page 99 It's Not Just Insulin: Diabetic Agents and Amelioration of Kidney Injury
Room 20A/B
Page 100 The Effect of Potassium on Blood Pressure: From the Cell to the Patients to Populations
Room 6C
**FRIDAY, NOVEMBER 6, 2015**

4:00 p.m. – 4:30 p.m.  
Afternoon Break

*Exhibit Halls A-B*

4:30 p.m. – 6:30 p.m.  
Clinical Practice Sessions

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<td>Drugs, Stents, and Telephones: Hip New Ways of Addressing Resistant Hypertension</td>
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<td>Evaluating AKI in the 21st Century</td>
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<td>Home Dialysis: Don't Take “No” for an Answer</td>
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<td>Polycystic Kidney Disease: The Fruits of Our Labors</td>
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<td>Transplant Boot Camp: Staying Active on the Waiting List</td>
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<td>You Have...What? Management of Pediatric Diseases for Adult Nephrologists</td>
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4:30 p.m. – 6:30 p.m.  
Oral Abstract Sessions

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<td>Bone and Vascular Disease in CKD</td>
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<td>Clinical and Basic Issues in Peritoneal Dialysis</td>
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<td>Clinical Outcomes of Hypertensive Disease</td>
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<td>Hereditary Disease of Podocytes and Tubular Epithelia</td>
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<td>Immunologic Basis of Glomerular Injury</td>
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<td>Measuring Risk of Donation and Graft Outcomes</td>
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<td>New Insights in the Pathogenesis of Diabetic Nephropathy</td>
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<td>Progenitors, Patterning, and Pacemakers</td>
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<td>Recovery from AKI: The Good, the Bad, and the Ugly</td>
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<td>You Are What You Eat: Dietary Risk Factors for CKD</td>
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8:00 a.m. – 9:30 a.m. Plenary Session

ASN Foundation for Kidney Research Founders Circle Member Recognition, Kidney Week Planning Committees Recognition, Homer W. Smith Award Presentation and Address, State-of-the-Art Lecture

Hall D

Supported by an independent educational grant from Akebia Therapeutics, Inc.

Upon completion of this session, the participant will be able to describe the genetics of cardiovascular disease.

8:00 a.m. ASN Foundation for Kidney Research Founders Circle Member Recognition
8:10 a.m. Kidney Week Planning Committees Recognition
8:20 a.m. Homer W. Smith Award Presentation and Address “The Podocyte: From Periphery to Center Stage”
   Dontscho Kerjaschki, MD
8:50 a.m. State-of-the-Art Lecture “Genetics of Cardiovascular Disease: Getting to the Heart of the Matter”
   Helen H. Hobbs, MD
FRIDAY, NOVEMBER 6, 2015

10:00 a.m. – 12:00 p.m. Poster Presentations

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- NIH and Informational Posters
- Fellows Case Reports - III (001-043)
- Fellows Case Reports - IV (044-093)
- Water/Urea/Vasopressin, and Organic Solutes (094-113)
- Hypertension: Basic (114-149)
- Mendelian Disease of the Kidney (150-180)
- Developmental Biology (181-199)
- Stem Cells (200-225)
- AKI: Basic Repair and Regeneration (226-274)
- Extracellular Matrix Biology, Fibrosis, Cell Adhesion - I (275-314)
- Cell Biology: Glomerular - I (315-363)
- Bioengineering and Informatics (364-402)
- Clinical Glomerular and Tubulointerstitial Disorders - II (403-456)
- AKI: Clinical - Epidemiology (457-506)
- CKD: Risk Factors for Incidence and Progression - II (507-559)
- CKD: Epidemiology, Outcomes: Noncardiovascular (560-601)
- Diabetes Mellitus and Obesity: Clinical (602-651)
- Standard Hemodialysis for ESRD - II (652-692)
- Hemodialysis: Clinical Science Potpourri (693-724)
- Dialysis: Epidemiology, Outcomes: Cardiovascular - II (725-757)
- Dialysis: Epidemiology, Outcomes, and Clinical Trials: Noncardiovascular - II (758-807)
- Peritoneal Dialysis - II (808-839)
- Nutrition, Inflammation, and Metabolism (840-898)
- Mineral Disease: Ca/Mg/PO$_4$ (899-937)
- Mineral Disease: Nephrolithiasis (938-955)
- Basic/Experimental Immunology (956-1000)
- Transplantation: Clinical and Translational - I (1001-1055)
- Transplantation: Clinical and Translational - II (1056-1108)

Please note that this book contains poster sessions but not individual abstract titles and authors. For abstract titles, authors, and more, please refer to the Kidney Week Mobile App, the “Locate Me” Kiosks for Posters and Exhibits in the exposition halls, or the Abstract Supplement PDF at www.asn-online.org/KidneyWeek.
From Systems Biology to Personalized Medicine

Room 6C

The powerful tools of systems biology could help us to reveal new disease mechanisms, new diagnosis markers, and new drug targets. This session discusses the recent advances in the systems biology field, the update on the NEPTUNE study, and the progress of the proteomics and metabolomics research for kidney disease. These studies will eventually lead to our personalized care of patients with kidney disease.

Upon completion of this session, the participant will be able to: 1) describe the basic concept of systems biology; 2) discuss the current status on the application of the systems biology in kidney disease; and 3) explain the importance of using systems biology to discover new biomarkers and drug targets for kidney disease.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:  
Frank C. Brosius, MD, and Zhihong Liu, MD

10:30 a.m. Systems Biology: A Powerful Tool for Genomic Study  
Barbara T. Murphy, MD

11:00 a.m. What Can We Learn from NEPTUNE?  
Matthias Kretzler, MD

11:30 a.m. Metabolome in Kidney Disease: Challenge and Hope?  
Kumar Sharma, MD

12:00 p.m. Urinary Proteome: When Could We Apply It in the Clinical Practice?  
Jon B. Klein, MD, PhD
Love Thy Neighbor: The Relationship between Principal and Intercalated Cells

Room 1

ASN thanks its Biosciences Research Advisory Group for assistance with this session.

Principal and intercalated cells in the distal nephron share more than just location within the cortical collecting duct. Although prior work highlighted the relation between sodium transport and acid secretion, recent studies have highlighted their common origin, their interdependent roles in sodium transport and potassium transport, and their interplay in resolving the aldosterone paradox. This session reviews the anatomy and origin of principal and intercalated cells, the role of intercalated cells in sodium and potassium transport, and the relationship between principal and intercalated cells to resolve the aldosterone paradox.

Upon completion of this session, the participant will be able to: 1) describe the anatomy and origin of principal and intercalated cells; 2) discuss the role of intercalated cells in sodium and potassium transport; and 3) explain the relationship between principal and intercalated cells to resolve the aldosterone paradox.

Core Competency: Medical Knowledge

Moderators:
Vivek Bhalla, MD, FASN, and Dominique Eladari, MD, PhD

10:30 a.m.  Cell-Fate Determination of Principal and Intercalated Cells
Wenzheng Zhang, PhD

11:00 a.m.  Regulation of Chloride Transport in Intercalated Cells
Carsten A. Wagner, MD

11:30 a.m.  Physiology of Flow-Mediated Potassium Secretion in Principal and Intercalated Cells
Lisa M. Satlin, MD, FASN

12:00 p.m.  Implications of Mineralocorticoid Receptor Phosphorylation State in CD Cells
Richard P. Lifton, MD, PhD
Recent advances in the field of bone–mineral metabolism research have highlighted many new data and potential paradigm shifts that may have bearing on clinically relevant risk factors for adverse outcomes in CKD and ESRD. Despite the significant new knowledge gained about the physiology and pathophysiology of vitamin D, parathyroid hormone (PTH), phosphorus, and alkaline phosphatase, the clinical applicability has not been clear to practitioners. This session reviews the most recent data for clinicians.

Upon completion of this session, the participant will be able to: 1) review the latest advances in vitamin D science and outcome data in CKD; 2) discuss our current understanding about mechanisms of actions whereby vitamin D and PTH affect bone health in CKD; 3) describe the effect of various factors and therapeutic interventions on circulating phosphorus; 4) explain the impact of intestinal inflammation on uremic mineral and bone disease; and 5) discuss recent data on alkaline phosphatase and its clinical utility compared with PTH.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
David A. Bushinsky, MD, and Michel Chonchol, MD

10:30 a.m.  Bye-Bye Vitamin D: What Roles Are Left for Nutritional and Active Vitamin D in CKD?  
Ishir Bhan, MD, MPH

11:00 a.m.  PTH Going to the Roof and Phosphorus Is Following: Impact of High PTH on Hyperphosphatemia  
Geoffrey A. Block, MD, FASN

11:30 a.m.  Impact of Gut Inflammation on Mineral and Bone Disease in CKD  
Wei Ling Lau, MD

12:00 p.m.  Return of Good Old Alkaline Phosphatase to CKD Patient Management  
Kamyar Kalantar-Zadeh, MD, PhD, MPH, FASN
10:30 a.m. – 12:30 p.m. Clinical Practice Session

Hot Topics in Hypertension

Room 5

This session reviews several important areas of hypertension, beginning with an overview of the role of inflammation and immune dysregulation in hypertension. SYMPLICITY HTN-3, the only sham operation-controlled trial of renal denervation, had disappointing results, but the field remains active—why? The long awaited JNC-8 guidelines were published in 2013, generating much discussion. Finally, the evidence for deleterious effects of elevated blood pressure on cognitive function is mounting. How do we begin to tackle this “final frontier?”

Upon completion of this session, the participant will be able to: 1) describe the role of altered immunity and inflammation in the pathogenesis of hypertension; 2) explain the significance of the negative results of SYMPLICITY HTN-3 and the impact on the future of renal denervation; 3) review the JNC-8 report and discuss the context and significance of the conclusions; and 4) explain how hypertension has a significant impact on brain function and new research regarding the pathogenesis of hypertensive cognitive impairment.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Systems-based Practice

Moderators:
Aldo J. Peixoto, MD, FASN, and Mahboob Rahman, MD

10:30 a.m. Inflammation, Immunity, and Hypertension
David G. Harrison, MD

11:00 a.m. Renal Denervation Redux
George L. Bakris, MD, FASN

11:30 a.m. What to Make of JNC 8
Raymond R. Townsend, MD

12:00 p.m. The Brain: Protecting Our Most Valuable Asset
Lenore J. Launer, PhD
IgA nephropathy is the most common primary glomerulonephritis worldwide, with end-stage kidney disease in 40% by 20 years, which is associated with persistent proteinuria at lower levels than targets for other primary glomerular diseases. This session reviews the latest on pathogenesis of IgA nephropathy. Current treatments are reviewed for the different pathologic forms of IgA. The question of whether Henoch-Schonlein Purpura (HSP) in adults and children acts as IgA is addressed. Finally, future biomarkers and targets for treatment are discussed.

Upon completion of this session, the participant will be able to: 1) describe the current understanding of the pathogenesis of IgA nephropathy; 2) determine optimal treatment strategies for IgA nephropathy in 2015 including steroid resistance; 3) recognize similarities and differences with HSP; and 4) discuss future biomarkers and possible targets of therapy.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
John Feehally, MD, and Richard J. Glassock, MD

10:30 a.m. Pathogenesis of IgA: Glycosylation and Beyond
Matthew B. Renfrow, PhD

11:00 a.m. Treatment for IgA Pathologic Variants and Steroid Resistance
Heather N. Reich, MD, PhD

11:30 a.m. HSP in Children and Adults: Is It Systemic IgA Nephropathy?
Gerald B. Appel, MD, FASN

12:00 p.m. Biomarkers and Future Therapies for IgA Nephropathy
Rosanna Coppo, MD
Peritoneal Dialysis Update: Notable Advances

Room 6A

The recent changes in dialysis reimbursement and the positive outcome results have led to a significant increase in dialysis modalities. This session provides updates on the economics of PD and recent advances in techniques and delivery methods.

Upon completion of this session, the participant will be able to: 1) describe the cost and reimbursement of various dialysis modalities in the United States; 2) differentiate between long-term effects of the available PD dialysate; 3) discuss the role of bioimpedance in assessing volume status; and 4) explain the role of urgent PD start and how it is accomplished.

Core Competency: Medical Knowledge

Moderators:
Ali K. Abu-Alfa, MD, FASN, and Keith A. Bellovich, DO, FASN

10:30 a.m. Changing Landscape of Home Dialysis in the United States
Rajnish Mehrotra, MD, FASN

11:00 a.m. Urgent Start Peritoneal Dialysis: Initial Experience
Steven Guest, MD

11:30 a.m. Biocompatible Peritoneal Dialysate: Are We There Yet?
Yeoung Jee Cho, MBBS

12:30 p.m. Bioimpedance in PD: Is It Necessary?
Andrew Davenport, MD
Renal Consults from the Oncology Floor

Room 6B

The nephrology service is asked to consult on cancer patients with numerous forms of kidney disease. New anticancer drugs are providing remarkable results in patients, but AKI is a significant complication. When renal involvement develops in monoclonal gammopathy of undetermined significance (MGUS), monoclonal gammopathy of renal significance (MGRS) is a more appropriate term. Hematopoietic stem cell transplantation (HSCT) is complicated by a number of acute and chronic renal issues. Finally, nephrologists should be aware of the electrolyte disorders that develop in cancer patients, including hyponatremia, hypokalemia, and hypomagnesemia. This session reviews the nephrotoxic potential of newly described therapeutic agents used to treat cancer, MGRS, HSCT, and the mechanisms and treatments for various electrolyte disorders that complicate cancer.

Upon completion of this session, the participant will be able to: 1) describe the nephrotoxic potential of newly described therapeutic agents used to treat cancer; 2) explain the clinical significance of kidney involvement in MGUS, now known as MGRS; 3) discuss the acute and chronic renal manifestations that complicate HSCT; and 4) describe the mechanisms and treatments for various electrolyte disorders that complicate cancer.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Farhad R. Danesh, MD, FASN, and Anushree C. Shirali, MD

10:30 a.m. Why Did My Patient Get This Kidney Problem after Receiving These New Cancer Drugs?
Ilya Glezerman, MD

11:00 a.m. My Patient with MGUS Has a Kidney Problem: What Is This Entity MGRS?
Nelson Leung, MD

11:30 a.m. Help: My HSCT Patient Has a Kidney Problem
Deirdre L. Sawinski, MD

12:00 p.m. 911: Why Are My Cancer Patients Developing These Electrolyte Disorders?
Brendan T. Bowman, MD
Board Certification and Recertification Forum

Room 6D

This special forum offers ASN members with an opportunity to voice their concerns and opinions about the controversies in board certification and recertification and to learn about recent developments in recertification options.

Please note: CME/CNE/CPE credit will not be awarded for this activity.

Moderator:
Mark E. Rosenberg, MD, FASN

10:30 a.m.  Update on Current Status of Certification and Recertification
Mark E. Rosenberg, MD, FASN

11:00 a.m.  Open Discussion

11:30 a.m.  National Board of Physicians and Surgeons
Paul Teirstein, MD

12:00 p.m.  Open Discussion
Complement Appreciated! A Redefined Role in Graft Injury and an Opportunity for Novel Therapies

Room 6F

There is increasing recognition of the expanding role of complement in mediating injury in kidney transplantation. This has spawned great interest in the use of therapies that target the complement system to prevent its activation and to thereby improve kidney transplant outcomes. This session reviews recent developments in the relationship between complement and alloimmunity, the role of complement pathways in mediating ischemia-reperfusion injury, indications for complement inhibitors in transplantation, and emerging therapies targeting the complement pathway.

Upon completion of this session, the participant will be able to: 1) identify recent developments in the relationship between complement and alloimmunity; 2) describe the role of complement pathways in mediating ischemia-reperfusion injury; 3) explain indications for using complement inhibitors in renal transplantation; and 4) discuss emerging therapies targeting the complement pathway.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators: Carla M. Nester, MD, and Susan E. Quaggin, MD

10:30 a.m. Emerging Role of Complement in Regulating Alloimmune Responses
Paolo Cravedi, MD, PhD

11:00 a.m. Complement and Ischemia-Reperfusion Injury
Steven H. Sacks, MD, PhD

11:30 a.m. Inhibiting Terminal Complement Activation in Kidney Transplantation: Where Do We Stand?
Christophe M. Legendre, MD

12:00 p.m. Targeting the Complement Cascade: Novel Treatments Coming down the Pike
Joshua M. Thurman, MD
Basic Science Symposium: Live Cell-Fluorescent Biosensors

Manchester Grand Hyatt, Coronado Ballroom

This symposium presents the most up-to-date techniques used to report on protein behavior in living cells. There are two principal areas of focus. The first lecture reviews engineered proteins and novel dyes that report on their signaling behavior in vivo. The second lecture addresses how optically switchable fluorophores can be used for highly sensitive fluorescence resonance energy transfer (FRET) measurements in cells and how autofluorescent probes can report on intracellular metabolism.

Upon completion of this session, the participant will be able to: 1) present state-of-the-art methodologies of biosensors; and 2) define uses of these probes in cell signaling, FRET measurements, and reporting on intracellular metabolism.

Core Competency: Medical Knowledge

Moderator:
Janos Peti-Peterdi, MD, PhD

12:45 p.m. Introduction
Janos Peti-Peterdi, MD, PhD

12:55 p.m. Live-Cell Fluorescent Biosensors for Activated Signaling Proteins
Jin Zhang, PhD

1:15 p.m. Multiphoton Excitation Imaging of Dynamic Processes in Living Cells and Tissues
David W. Piston, PhD

1:35 p.m. Questions and Answers
Klotho deficiency is a known complication of AKI and CKD, and replacement of klotho in these settings appears to be protective. Although klotho levels can be measured in circulation, there are many remaining questions about what the measured levels mean. This session provides updates on the latest developments in this important area.

Upon completion of this session, the participant will be able to: 1) discuss the latest developments in klotho biology in CKD; 2) identify pitfalls of existing klotho assays and place into context burgeoning literature reporting on the results of the assays; and 3) describe the role of klotho deficiency on vascular health, CKD progression, and the myocardium.

Core Competency: Medical Knowledge

Moderators:
Orlando M. Gutierrez, MD, and Katherine Wesseling-Perry, MD

2:00 p.m. Kidney as the Major Source of Circulating A-Klotho
Makoto Kuro-o, MD, PhD

2:30 p.m. Klotho Deficiency in AKI
Ming Chang Hu, MD, PhD

3:00 p.m. Klotho Deficiency in CKD and Its Effects on the Myocardium
Orson W. Moe, MD

3:30 p.m. Circulating Klotho Levels: Best Way to Measure and How to Interpret Existing Data
Sachdev Sidhu, PhD
FRIDAY, NOVEMBER 6, 2015

2:00 p.m. – 4:00 p.m. Basic and Clinical Science Session

Clinical Utility of Traditional and Novel Cardiac Biomarkers in CKD Patients

Room 6B

Supported by an independent educational grant from AstraZeneca and FibroGen.

This session summarizes associations between traditional cardiac biomarkers such as troponins, brain natriuretic peptide, left ventricular mass index, coronary artery calcium scores, and clinical outcomes in CKD and ESRD patients in an attempt to highlight the strengths and limitations of existing data for prognostication. In addition, data that support the utility of their use for diagnostic purposes in the acute setting are reviewed. The role of novel cardiac biomarkers on the horizon for CKD also are discussed.

Upon completion of this session, the participant will be able to: 1) describe that troponins and B-type natriuretic peptide (BNP)/aminoterminal portion of pro-BNP (NT-proBNP) levels are commonly elevated in asymptomatic CKD patients and associated with a poor cardiovascular prognosis; 2) explain that higher cut-offs, or a rise in levels compared with baseline, aid in distinguishing acute myocardial infarction from chronic troponin elevations in symptomatic CKD patients; 3) describe the diagnostic utility of BNP/NT-proBNP for acute chronic heart failure exacerbation in CKD patients; 4) explain the role of cardiac imaging biomarkers (coronary artery calcium, left ventricular mass, and left ventricular function) for prognostication and risk stratification in CKD patients; and 5) discuss novel cardiac biomarkers on the horizon in CKD.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:
Anders H. Berg, MD, PhD, and Patrick H. Pun, MD

2:00 p.m. Elevated Cardiac Troponins in CKD: What They Tell Us about Diagnosis and Prognosis
Charles A. Herzog, MD

2:30 p.m. Will Coronary Artery Calcification Ever Be Used for CKD Risk Stratification?
Matthew Jay Budoff, MD

3:00 p.m. Role of BNP, Pro-BNP, and Elevated Left Ventricular Mass in Cardiorenal Syndrome
Peter A. McCullough, MD, MPH

3:30 p.m. Novel Cardiac Biomarkers in CKD: What’s on the Horizon?
Nisha Bansal, MD
ER Stress in the Kidney

The accumulation of unfolded proteins in the endoplasmic reticulum (ER) is caused by various pathological conditions and leads to ER stress. ER stress activates a number of stress pathways called the unfolded protein response (UPR). The UPR may be adaptive and promote cell survival, or if the ER stress persists chronically or is too excessive, it leads to cell death. The role of ER stress in the pathogenesis of both acute and chronic kidney diseases has been gaining increasing interest as it affects both glomerular and tubular cells and may also play a role in fibrotic pathways. This session focuses on causes of ER stress, stress pathways, and molecular mechanisms.

Upon completion of this session, the participant will be able to: 1) define ER stress and its causes; 2) describe stress pathways activated by ER stress and their molecular mechanisms; and 3) explain ER stress in the context of acute and chronic renal injury.

Core Competency: Medical Knowledge

Moderators:
Andrey V. Cybulsky, MD, and Jeffrey G. Dickhout, PhD

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<tr>
<th>Time</th>
<th>Session Topic</th>
<th>Speaker</th>
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<tr>
<td>2:00 p.m.</td>
<td>ER Stress and Proximal Tubule Injury</td>
<td>Richard Austin, PhD</td>
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<td>2:30 p.m.</td>
<td>ER Stress and Diabetes</td>
<td>Josephine M. Forbes, PhD</td>
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<td>3:00 p.m.</td>
<td>ER Stress and Podocytes</td>
<td>Ying Maggie Chen, MD, PhD</td>
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<td>3:30 p.m.</td>
<td>Oxidative Stress and Kidney Injury</td>
<td>Masaomi Nangaku, MD, PhD</td>
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FRIDAY, NOVEMBER 6, 2015

2:00 p.m. – 4:00 p.m. Basic and Clinical Science Session

**Extrarenal Mechanisms for Hypertension and Cardiovascular Disease**  
*Room 25*

The kidney, blood vessels, immune cells, lymphatics, and central nervous system are all implicated in the genesis of experimental hypertension. This session discusses novel extrarenal and immune mechanisms that trigger hypertension and lead to cardiovascular disease.

Upon completion of this session, the participant will be able to: 1) explain how vascular pathways contribute to hypertension; 2) identify novel therapeutic targets for cardiovascular disease; 3) describe the role of skin and lymphatics in salt sensitivity; and 4) discuss the role of immune system in blood pressure control.

Core Competency: Professionalism, Medical Knowledge

*Moderators:*

Richard J. Johnson, MD, and Friedrich C. Luft, MD, FASN

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<tr>
<th>Time</th>
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<tr>
<td>2:00 p.m.</td>
<td>T-Cell Angiotensin Signaling in Hypertensive Organ Damage</td>
<td>Steven D. Crowley, MD</td>
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<td>2:30 p.m.</td>
<td>Vascular Smooth Muscle PPAR-γ Signaling in Hypertension</td>
<td>Curt D. Sigmund, PhD</td>
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<td>3:00 p.m.</td>
<td>Lymphatics and Skin in Hypertension</td>
<td>Jens Titze, MD</td>
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<td>3:30 p.m.</td>
<td>Leptin-Mediated Hypertension</td>
<td>Michael Cowley</td>
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Although the mechanisms regulating early patterning of the nephron are beginning to be understood, much less is known about how the terminally differentiated epithelium is specified and how these components are integrated with other cellular compartments to form the adult kidney. This session describes our current understanding of the pathways regulating terminal differentiation of epithelial compartments in the kidney and how these compartments integrate with the vasculature and stroma during embryonic developments.

Upon completion of this session, the participant will be able to: 1) describe the basic cellular pathways specifying terminal differentiation of collecting duct, glomerular epithelium, and mesangial cells; and 2) explain how terminally differentiated epithelium becomes integrated with the vasculature and stroma during embryonic kidney development.

Core Competency: Medical Knowledge

Moderators:
Denise K. Marciano, MD, PhD, and Oliver Wessely, PhD

2:00 p.m.  Patterning and Integration of the Renal Stroma
Norman D. Rosenblum, MD

2:30 p.m.  Integration of the Renal Vasculature
Maria Luisa S. Sequeira Lopez, MD

3:00 p.m.  Formation of the Mature Glomerulus
Tobias B. Huber, MD

3:30 p.m.  Specification of Principal and Intercalated Cells in the Collecting Duct
Feng Chen, PhD
Glomerular Interactions with the Hemostasis System: Novel Targets and Approaches in Glomerular Disease

Room 6F

Glomerular diseases may arise from a variety of extrinsic insults such as diabetes and hypertension or from intrinsic dysregulation such as idiopathic FSGS or autoimmunity. Many of these diseases are also associated with coagulation derangements and an increased risk for thrombotic disease. This session explores the mechanisms by which coagulation enzymes may alter glomerular cell responses during glomerular disease. Potentially novel therapeutic targets related to coagulation are also explored.

Upon completion of this session, the participant will be able to: 1) describe the interrelationship between dysregulation of the coagulation system and the development and resolution of glomerular disease; and 2) identify novel potential future treatments to minimize thrombosis during glomerular disease.

Core Competency: Medical Knowledge

Moderators:
Patrick H. Nachman, MD, FASN, and Michelle N. Rheault, MD

2:00 p.m. Mechanisms of Thrombosis in Glomerular Disease: What Is Known, What Is Left Unknown
Vimal K. Derebail, MD, MPH, FASN

2:30 p.m. Thrombin-Mediated Glomerular Injury in Nephrotic Syndrome
Bryce A. Kerlin, MD

3:00 p.m. Protease-Activated Receptors in Crescentic Glomerulonephritis
Berend Heinrich Isermann, MD

3:30 p.m. Anticoagulation in Glomerular Disease
Heather N. Reich, MD, PhD
Ions, Channels, and Immunity

Room 6E

This session explores the novel roles of ions and channels in immune responses. Recent findings on how salt, calcium channels, and potassium channels effect immunity, as well as potential for therapy, are discussed.

Upon completion of this session, the participant will be able to: 1) describe how ions and channels play an important role in immune responses that can serve as targets for therapy in autoimmune diseases; 2) discuss the effects of salt in driving Th17 cells and autoimmunity; 3) explain how calcium channels are important for protective T-cell responses; and 4) discuss that targeting lymphocyte responses via potassium channels is an emerging therapeutic option for autoimmune diseases and chronic rejection.

Core Competency: Medical Knowledge

Moderators:
Mohammed Javeed Ansari, MD, and Leonardo V. Riella, MD, PhD, FASN

2:00 p.m.  Ions and Channels in Lymphocyte Function: Role of Kca3.1 in CD4 T Cell Immunity
Edward Y. Skolnik, MD

2:30 p.m.  IL-17 in Human Autoimmune Disease and Link to Salt
David Hafler, MD

3:00 p.m.  Calcium Channels and Immune Function
Patrick Hogan, PhD

3:30 p.m.  Potassium Channels in Immunity and Allograft Vasculopathy
Heike Wulff, PhD
FRIDAY, NOVEMBER 6, 2015

2:00 p.m. – 4:00 p.m.  Basic and Clinical Science Session

Lost in Translation: AKI Preclinical Models

Room 2

Recently, the NIH expressed general concern regarding the lack of translatability of animal studies to clinical trials, particularly in regard to sex disparities and data reproducibility. This lack of translation is especially apparent for AKI. This session discusses the strengths and limitations of preclinical AKI models and methods to more faithfully represent human disease. This session is of value to both new and established investigators to understand the strengths/limitations of established models and provide avenues to improve/develop new models.

Upon completion of this session, the participant will be able to: 1) explain the effect of sex on preclinical AKI and how to incorporate both sexes in future animals studies as will be mandated by the NIH; 2) discuss strengths and limitations of animal models to represent human diseases in AKI; 3) describe approaches to develop complex models of AKI; and 4) recommend methods to improve existing established models.

Core Competency: Medical Knowledge

Moderators:
Michael T. Eadon, MD, and Paul L. Kimmel, MD, FASN

2:00 p.m.  The Promise and Pitfalls of Preclinical Models of Human AKI
Karl A. Nath, MD

2:30 p.m.  Sex, Species, Age, and Other Factors that Effect Traditional Models of AKI
Benjamin D. Humphreys, MD, PhD, FASN

3:00 p.m.  Models of AKI Progressing to CKD
Manjeri A. Venkatachalam, MBBS

3:30 p.m.  Complex Models Including Acute on Chronic Kidney Disease
Robert A. Star, MD
Mitochondrial Regulation in the Glomerulus

Room 23

The mitochondria regulates a wide array of functions within the cell from energy production to cell death. Recent evidence suggests that dysregulation of the mitochondria can result in proteinuria, identified through human genetic studies, mice models of FSGS, and diabetic nephropathy. This session elucidates the critical role the mitochondria plays in maintaining a functional kidney filtration barrier.

Upon completion of this session, the participant will be able to: 1) describe signaling within the mitochondria; 2) discuss genetic mutations regulating mitochondria function in FSGS; 3) describe mitochondrial oxidative stress; and 4) discuss mitochondrial fission.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Jeffrey B. Kopp, MD, FASN, and Stephen C. Textor, MD

2:00 p.m.  Signaling in the Mitochondria in Health and Disease
Navdeep S. Chandel, PhD

2:30 p.m.  Genetic Mutations Regulating Mitochondrial Function in FSGS
Friedhelm Hildebrandt, MD

3:00 p.m.  Role of Mitochondrial Fission in Diabetic Nephropathy
Farhad R. Danesh, MD, FASN

3:30 p.m.  Mitochondrial Oxidative Stress in FSGS
Ilse S. Daehn, PhD
2:00 p.m. – 4:00 p.m. Basic and Clinical Science Session

Polycystins Function: Lessons from the Polycystin-Like Proteins

Room 8

The function of polycystin-1 and polycystin-2, the two proteins defective in ADPKD, remains to be fully elucidated. Since their identification, a number of polycystin-like proteins have been identified with unexpected functions outside the kidney. These include left-right axis determination, taste sensation, sperm–egg interactions, and neuromuscular function. This session explores what can be learned from studies of these paralogues relevant to polycystin function and ADPKD pathogenesis.

Upon completion of this session, the participant will be able to: 1) describe the existence of polycystin-like proteins and their likely functions; 2) correlate how the function of polycystin-like proteins relate to the function of polycystins; and 3) develop new hypotheses about the pathogenesis of ADPKD.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Peter C. Harris, PhD, and Albert C. Ong, MD

2:00 p.m. Pkd1L1 and Pkd2: LR Determination
Dominic P. Norris, PhD

2:40 p.m. Pkd1L1 and Pkd2L1: Cilia Currents
David E. Clapham, MD, PhD

3:20 p.m. PkdREJ and Pkd2: Acrosome Reaction
Jing Zhou, MD, PhD, FASN
2:00 p.m. – 4:00 p.m. \hspace{1em} Basic and Clinical Science Session

The Genome: Natural and Unnatural Modifications

Room 24

ASN thanks its Biosciences Research Advisory Group for assistance with this session.

Technologies for analyzing and modifying the mammalian genome in vitro and in vivo have seen many breakthroughs over the last few years because of progress in basic science research. This session brings awareness to these techniques and how they might be used to study the kidney and to someday treat kidney diseases.

Upon completion of this session, the participant will be able to: 1) discuss the latest state-of-the-art technologies that are used to modify mammalian genomes in cultured cells and in vivo, including gene therapy approaches; 2) explain how human-induced pluripotent stem cells can be derived, modified, and used to investigate mechanisms of human disease; and 3) describe how the epigenome is analyzed and why it is important to human kidney disease.

Core Competency: Medical Knowledge

Moderators:
Samir S. El-Dahr, MD, and Fangming Lin, MD, PhD, FASN

2:00 p.m. \hspace{1em} New Models of Human Physiological Disorders Generated by Genome Editing in the Rat
Aron M. Geurts, PhD

2:30 p.m. \hspace{1em} Isolating and Modifying Human iPS Cells
Sharon D. Ricardo, PhD

3:00 p.m. \hspace{1em} Mouse Models of Human Disease Allele Candidates
Andrey S. Shaw, MD

3:30 p.m. \hspace{1em} Prospects for Human Gene Therapy
Matthew H. Wilson, MD, PhD
Toxins Still Need to Be Removed in Dialysis Patients

Room 7

Even higher levels of uremic toxins are often observed in dialysis patients than in CKD patients. These toxins cause organ damage by various mechanisms. In this session, regulation and possible removal of uremic toxins are discussed.

Upon completion of this session, the participant will be able to: 1) describe the mechanism of organ damage by uremic toxins in dialysis patients; and 2) discuss modalities to reduce toxin levels applicable in dialysis patients.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Ziad Massy, MD, PhD, and Timothy W. Meyer, MD

2:00 p.m.  Uremic Toxins in Dialysis Patients
Tammy L. Sirich, MD

2:30 p.m.  Mechanism and Prevention of Organ Damage by Uremic Toxins
Ziad Massy, MD, PhD

3:00 p.m.  Transporters for Uremic Toxins
Sanjay K. Nigam, MD

3:30 p.m.  Clearance of Uremic Toxins by Super-Flux Dialysis
Toshimitsu Niwa, MD, PhD
Drug-Induced Renal Biopsy Pathology

Room 5

This session describes the pathology and pathogenesis of kidney injury due to medicinal and illicit drug use. Drug toxicity is associated not only with acute tubular injury and interstitial nephritis but also glomerular (podocyte) injury such as collapsing FSGS and thrombotic microangiopathy. This session is a comprehensive review of the topic, aiming to increase awareness of current pathologies encountered on renal biopsy.

Upon completion of this session, the participant will be able to: 1) describe the spectrum of drug-induced tubulointerstitial and glomerular pathology; 2) explain the histopathologic features; and 3) discuss the differential diagnosis of the various entities presenting with similar histopathologic findings.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Josephine M. Ambruks, MD, MPH, and Glen S. Markowitz, MD

2:00 p.m. Drugs of Abuse and the Kidney
Leal C. Herlitz, MD

2:30 p.m. Chemotherapy-Related Renal Injury
Megan L. Troxell, MD, PhD

3:00 p.m. CNI- and NSAID-Related Nephropathy
Luan D. Truong, MD

3:30 p.m. TUMS, Lithium, and Warfarin
Lynn D. Cornell, MD
FRIDAY, NOVEMBER 6, 2015

**Clinical Practice Session**

**2:00 p.m. – 4:00 p.m.**

**ESRD Outcomes Databases: How Should Data Guide Policy?**

*Room 6D*

ASN thanks its Public Policy Board for assistance with this session.

Several databases exist to facilitate outcomes research and to gauge practice patterns in ESRD. Recent changes and innovations have contributed to evolution of research and practice monitoring opportunities within these data sets. This session describes the most up-to-date key findings of several national databases and explores the policy implications of these findings, including methodological considerations in assessing outcomes, opportunities to improve or develop quality metrics, and leveraging the potential of big data related to improve outcomes. Finally, this session reviews evidence gaps that require additional research to continue to improve ESRD patient care.

Upon completion of this session, the participant will be able to: 1) describe the current most important clinical outcomes and trends in outcomes in US ESRD patients in near real time; 2) determine those areas of clinical focus that are most likely to improve mortality and hospitalization; and 3) discuss the policy implications of these findings, including quality measurement and the future analytical research agenda to improve care in ESRD.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

*Moderators:*

Daniel E. Weiner, MD, FASN, and Wolfgang C. Winkelmayer, MD, PhD, MPH

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2:00 p.m. **DOPPS: Recent Findings and Policy Implications**

Bruce M. Robinson, MD, MPH, FASN

2:20 p.m. **PEER: Recent Findings and Policy Implications**

Allan J. Collins, MD

2:40 p.m. **SRTR: Recent Findings and Policy Implications**

Peter P. Reese, MD

3:00 p.m. **Summary**

Barry M. Straube, MD

3:20 p.m. **Panel Discussion**
This session discusses the emerging perspectives on the management of kidney stones. Expanding extrarenal manifestations necessitates that both children and adults with nephrolithiasis be managed comprehensively to limit long-term morbidity. Factors other than supersaturation can alter kidney stone risk and are discussed as potential therapeutic targets. This session also reviews patient populations that are at risk for kidney stones and outlines the diagnosis and management of rare kidney stones to help avoid potential clinical pitfalls.

Upon completion of this session, the participant will be able to: 1) discuss extrarenal manifestations of kidney stones in children and adults; 2) describe the pathophysiology of kidney stones beyond supersaturation; 3) discuss patient populations that are at risk for stones and how to manage them; 4) describe the pathophysiology and molecular mechanisms of kidney stones; and 5) explain the management of rare stones.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Gary C. Curhan, MD, ScD, FASN, and Elaine M. Worcester, MD, FASN
Nephrology Faculty Development 2015: Expanding Your Teaching Repertoire

Room 1

This session is aimed at clinical educators working with a range of learner levels, including those specifically associated with nephrology fellowship programs, to enhance teaching skills. The session is introduced by the “Master Class” series of past Kidney Weeks, focusing this year on dialysis modality selection, and also including topics on electronic delivery of educational material and educational milestone development. It concludes with a look at the use of an innovative classroom format, the flipped classroom, in the adult learning world.

Upon completion of this session, the participant will be able to: 1) discuss techniques for teaching dialysis prescription in the intensive care unit; 2) describe the spectrum of electronic continuing medical education in nephrology; 3) improve ability to assess the nephrology milestones; and 4) identify potential uses of the flipped classroom model in adult education.

Core Competency: Professionalism, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills

Moderators: John D. Mahan, MD, and Karen M. Warburton, MD

2:00 p.m. Master Class: How to Teach Dialysis Modality Selection and Prescription in the ICU Setting
Ashita J. Tolwani, MD

2:30 p.m. Delivering Nephrology CME in Electronic Formats
Matthew A. Sparks, MD, FASN

3:00 p.m. Adjusting Your Assessment System to Improve Milestone Evaluation
Rudolph A. Rodriguez, MD

3:30 p.m. Adult Learning: Exploring the Flipped Classroom
Suzanne M. Norby, MD, FASN
Drug Repurposing in Kidney Disease

Room 26

Drug discovery is highly challenged and costly. In addition, many new drugs cannot be translated into clinical practice, and several clinical trials have failed in the field of kidney disease. This session discusses how we could repurpose old drugs for new applications in kidney disease. Drug repurposing could be a quick and cheaper strategy for developing new drugs for kidney disease.

Upon completion of this session, the participant will be able to: 1) describe the normal process for drug discovery; 2) identify current barriers for drug discovery; and 3) explain the concept of drug repurposing.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Thomas H. Hostetter, MD, and Detlef O. Schlendorff, MD

2:00 p.m.  Regulatory Considerations for Drug Repurposing in Kidney Disease
Patrick Archdeacon, MD

2:30 p.m.  Drug Repurposing: An Attractive and Economic Way for Drug Discovery
Merridee A. Wouters, PhD

3:00 p.m.  Systems Pharmacology to Assess Drug–Drug Interaction
Ravi Iyengar, PhD

3:30 p.m.  FONT Study: An Application of Clinical Research for Drug Repurposing
Howard Trachtman, MD, FASN
FRIDAY, NOVEMBER 6, 2015

2:00 p.m. – 4:00 p.m. Translational Session

It’s Not Just Insulin: Diabetic Agents and Amelioration of Kidney Injury

Room 20A/B

A number of the newer diabetic agents have direct effects on the tubular cells in the kidney. Animal models have shown that use of agents that affect incretins, PPAR-γ, or SGLT2 can ameliorate kidney damage. These agents may have a role in the future in slowing progression of diabetic nephropathy. This session reviews mechanisms of action of new diabetic agents on the kidney and the potential role of these agents on progression of kidney disease.

Upon completion of this session, the participant will be able to: 1) describe mechanisms of action of new diabetic agents on the kidney; and 2) discuss the potential role of these agents on progression of kidney disease.

Core Competency: Medical Knowledge

Moderators:
Matthew D. Breyer, MD, FASN, and Sankar D. Navaneethan, MD, MPH, FASN

2:00 p.m. GLP-1 Receptor Agonists and DPP-4 Inhibitors and Amelioration of Kidney Injury
tetsuhiro tanaka, MD, PhD, FASN

2:30 p.m. Effect of SGLT 2 Inhibitors on Diabetic Kidney Disease
Volker Vallon, MD

3:00 p.m. Effect of PPAR-γ Agonists on Diabetic Kidney Disease
Carol A. Pollock, MD, PhD

3:30 p.m. Role of the Tubule in Diabetic Nephropathy
Sydney C.W. Tang, MBBS, MD, PhD
The Effect of Potassium on Blood Pressure: From the Cell to the Patients to Populations

Room 6C

This session examines how potassium affects blood pressure at four different levels, how potassium channels affects sodium reabsorption at the cellular level, and how potassium affects blood pressure in humans at both the patient level and the population level.

Upon completion of this session, the participant will be able to: 1) explain the impact of potassium on sodium reabsorption at the cellular level; 2) describe the impact of potassium on sodium reabsorption in the distal convoluted tubule (DCT); 3) explain the impact of potassium on blood pressure in CKD patients; and 4) describe the impact of potassium on blood pressure in humans on a population-wide basis.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Benjamin S. Ko, MD, and James A. McCormick, PhD

2:00 p.m. How Potassium Channels Regulate NCC Function and Expression
WenHui Wang, MD

2:30 p.m. Dephosphorylation of NCC by Dietary Potassium
Ewout J. Hoorn, MD, PhD

3:00 p.m. Potassium Intake and HTN in CKD
Rajiv Agarwal, MD, MBBS, FASN

3:30 p.m. How Does Potassium Affect Blood Pressure in Humans
Andrew Mente, PhD
It is no secret that nephrologists are often faced with various unique financial businesses and investments that are challenging and demanding high ethical standards. The growth of mega dialysis corporations has potentially diminished the autonomy and sense of control in running a dialysis unit. This session navigates these venues and openly discusses the elephant in the room.

Upon completion of this session, the participant will be able to: 1) describe the complexity and legal ramifications of various currently available business or investment choices; 2) list the contemporary obligations of dialysis medical directors in an environment of corporate medicine; and 3) discuss the challenges and solutions to current “practices” in nephrology.

Core Competency: Professionalism, Systems-based Practice

Moderators:
Glenn Matthew Chertow, MD, MPH, FASN, and Allan J. Collins, MD

4:30 p.m. The Business Aspect of Dialysis: Navigating the Nephrologist’s Role  
Rebecca J. Schmidt, DO, FASN

5:00 p.m. My Hands Are Tied: What Is the Real Role of the Dialysis Medical Director?  
Raymond M. Hakim, MD, PhD

5:30 p.m. Ethics in the Dialysis Business  
Alvin H. Moss, MD

6:00 p.m. Panel Discussion; Questions and Answers
Drugs, Stents, and Telephones: Hip New Ways of Addressing Resistant Hypertension

Room 20C/D

ASN thanks its Hypertension Advisory Group for assistance with this session.

Clinicians continue to struggle with the control of resistant hypertension. Are the reasons physiologic, environmental, or how we engage patients? This session examines the scope of the problem, reviews potential reasons for its occurrence, and suggests new approaches in its management. For some patients, it may be just a matter of extra attention; for others, the right drug; and finally for a selective few, nonpharmacologic intervention may be needed.

Upon completion of this session, the participant will be able to: 1) describe the burden of disease and the potential mechanisms of resistant hypertension; 2) examine the role of telemonitoring in managing resistant hypertension; and 3) examine the role of renal artery stenting and carotid baroreceptor stimulation.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
George L. Bakris, MD, FASN, and Robert D. Toto, MD

4:30 p.m. Incidence and Prevalence of Resistant Hypertension: Updates from CRIC and Other Cohorts
Emmy Klip Bell, MD, MPH

5:00 p.m. Mechanisms of Resistant Hypertension: Translating Findings for the Primary Nephrologist
Andrew S. Bomback, MD, MPH

5:30 p.m. Telemonitoring: An Approach to Improving Self-Management of Resistant Hypertension
Richard McManus, MBBS, PhD

6:00 p.m. Intervening on Arteries—Renal and Carotid—for Hypertension Treatment
Marc A. Pohl, MD
4:30 p.m. – 6:30 p.m.  
Clinical Practice Session

Evaluating AKI in the 21st Century

Room 20A/B

While AKI has been staged in recent years, the utility of tests for early diagnosis/prognosis remains unclear. This session evaluates clinically relevant issues in clinically useful AKI diagnostics. This session explores the utility of the furosemide stimulation test in predicting the severity of AKI, examines the new concept of estimating kinetic GFR in AKI, reviews the role of urine microscopy in AKI, and finally reviews the renal angina index as a predictor of AKI.

Upon completion of this session, the participant will be able to: 1) describe the utility of the furosemide stimulation test in predicting severity of AKI; 2) explain the concept and use of the estimating kinetic GFR in AKI; 3) describe the role of urine microscopy in the evaluation of AKI in 2015; and 4) explain the utility of the renal angina index in predicting the occurrence of AKI.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:  
Steven G. Coca, DO, and Mark A. Perazella, MD, FASN

4:30 p.m.  Can We Predict AKI Severity with the Furosemide Stimulation Test?  
Jay L. Koyner, MD

5:00 p.m.  Estimating Kinetic GFR in the Setting of AKI: Is It Useful?  
Sheldon Chen, MD, FASN

5:30 p.m.  Does Urine Microscopy Have a Role in AKI in 2015?  
Randy L. Luciano, MD, PhD

6:00 p.m.  Is the Renal Angina Index Useful to Predict AKI?  
Rajit K. Basu, MD
Clinical Practice Session

Home Dialysis: Don’t Take “No” for an Answer

Room 6C

This session reviews the various pros and cons of home dialysis. Experts discuss common misconceptions of who is or is not a suitable candidate for home dialysis, the support and teamwork required to successfully implement it, and how to facilitate home PD and HD. This session demonstrates how home dialysis is underused and provides strategies to increase its adoption.

Upon completion of this session, the participant will be able to: 1) describe benefits of home dialysis to patients, their family, and the health care system; 2) identify appropriate patients for home dialysis; 3) explain how patients can successfully change renal replacement therapy modalities within a home environment; 4) discuss logistic challenges and reimbursement issues related to home dialysis; and 5) explain how information technology can be used to enhance and facilitate home dialysis.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Rajnish Mehrotra, MD, FASN, and Beth M. Piraino, MD

4:30 p.m. The “Home Body”: Choosing Patients for and Implementing Home Dialysis
Matthew J. Oliver, MD

5:00 p.m. Using Information Technology to Facilitate and Optimize Home Dialysis
James A. Sloand, MD, FASN

5:30 p.m. Home Sweet Home: Switching Modalities from Home to Home
Joanne M. Bargman, MD

6:00 p.m. Home Money Matters: Reimbursement Considerations for Home Dialysis
Beth M. Piraino, MD
FRIDAY, NOVEMBER 6, 2015

4:30 p.m. – 6:30 p.m. Clinical Practice Session

Polycystic Kidney Disease: The Fruits of Our Labors

Room 6F

ADPKD is the leading genetic cause of ESRD, affecting 1/800 to 1/1000 individuals. This session focuses on our progress in the clinical applications of the research findings in the basic pathophysiology of ADPKD.

Upon completion of this session, the participant will be able to: 1) explain the potential promise of combination therapies; 2) discuss the ethics and utility of presymptomatic screening; 3) describe the role of dietary modification in treatment of PKD; and 4) explain the role of novel surgical therapies in the complications of PKD.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Arlene B. Chapman, MD, and Theodore I. Steinman, MD, FASN

4:30 p.m. The Promises of HALT: What Have We Learned?
Frederic F. Rahbari-Oskoui, MD, FASN

5:00 p.m. Ethics of Presymptomatic Screening in PKD: Are We Ready for Early Identification?
Melissa A. Cadnapaphornchai, MD, FASN

5:30 p.m. Novel Surgical Therapies in PKD
Marie C. Hogan, MBChB, MD, PhD, FASN

6:00 p.m. Future of PKD Therapy
Peter G. Czarnecki, MD
Transplant Boot Camp: Staying Active on the Waiting List

We evaluate patients for transplant with the goal of getting them listed and having them active on the wait list. This session addresses the process of evaluating patients for transplant, including cardiovascular screening and the impact of the new allocation system. Recommendations regarding physical activity and minimizing sensitization are discussed.

Upon completion of this session, the participant will be able to: 1) explain how to evaluate and treat cardiovascular disease with the goal of listing for transplant; 2) identify impacts of the new kidney allocation system on the listing process and the effects on certain patient groups; 3) discuss both benefits and limitations of exercise for patients on the waiting list; and 4) recommend strategies for minimizing sensitization in those patients requiring retransplantation.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills

Moderators:
Scott Leonard Sanoff, MD, and Karin A. True, MD, FASN

4:30 p.m. Keep on Ticking: Pretransplant Cardiovascular Screening and Intervention
Bertram L. Kasiske, MD

5:00 p.m. Impact of the New Kidney Allocation System on Waitlist Management
Richard Formica, MD

5:30 p.m. Feel the Burn: Exercise While You Wait
Erica L. Hartmann, MD

6:00 p.m. Out with the Old (Graft)? Strategies to Minimize Sensitization in Retransplant
Joshua J. Augustine, MD
You Have...What? Management of Pediatric Diseases for Adult Nephrologists

Room 5

ASN thanks its Practicing Nephrologists Advisory Group for assistance with this session.

Some genetic and urologic disorders that present in childhood are so rare that adult nephrologists have little experience in the cutting-edge management of these problems. This session focuses on the discussion of nonglomerular conditions in young people who are transitioning to adult care, with an emphasis on management, including screening and prevention of complications, visit frequency, and specific treatments in these disorders.

Upon completion of this session, the participant will be able to: 1) discuss particular issues related to monitoring of patients with congenital renal disorders other than nephrotic and nephritic syndromes; 2) recommend specific treatment strategies and prevention of complications of the most common tubulopathies diagnosed in childhood; and 3) increase awareness of pediatric urological issues in kidney transplantation.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Meredith A. Atkinson, MD, and Rulan S. Parekh, MD, FASN

4:30 p.m.  Tubulopathies: What to Expect after Childhood
Uri S. Alon, MD

5:00 p.m.  Cystinosis: Update on Therapy and Long-Term Outcome
Daryl M. Okamura, MD

5:30 p.m.  Transitioning the Adolescent with Urologic Disease: What Is That Stoma?
Andrew L. Freedman, MD

6:00 p.m.  Hereditary Stone Diseases: Treatment and Monitoring
Andrew L. Schwaderer, MD
Upon completion of the oral abstract sessions, the participant will be able to: 1) construct new research questions based on updated scientific and clinical advances in nephrology-related disciplines; and 2) translate recent advances into new standards and approaches to clinical care of patients with kidney diseases and related disorders.

Core Competency: Medical Knowledge

Acid Base, Fluids, and Electrolytes

**Room 6D**

**Moderators:**

*Kathleen S. Hering-Smith, PhD, and Kevin Ho, MD*

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**4:30 p.m. – 6:30 p.m.**

**Oral Abstract Sessions**

4:30 p.m. **Effects of Cyclosporine on Renal Handling of Divalent Cations in Claudin 16-Deficient Mice** — Hoora Drewell, Tilman Breiderhoff, Dominik Müller, Michael Fähling, Sebastian Bachmann, Kerim Mutig. Berlin, Germany.

4:42 p.m. **Ogr1 and Acid-Induced Hypercalcuria** — Pedro Henrique Imenez Silva, Kessara Chan, Marie-Gabrielle Ludwig, Jürg Andreas Gasser, Timothy R. Arnett, Olivier Bonny, Klaus Seuwen, Carsten A. Wagner. Zurich, Switzerland.

5:06 p.m. **Effect of Concurrent P2Y2 Receptor Deletion and P2Y12 Receptor Blockade on Lithium-Induced Nephrogenic Diabetes Insipidus in Mice** — Yue Zhang, Kristina M. Heiney, Bellamkonda K. Kishore. Salt Lake City, UT.


5:30 p.m. **Proximal Tubule-Specific Glutamine Synthetase Deletion Alters Basal and Acidosis-Stimulated Renal Ammonia Excretion** — Hyun-Wook Lee, Gunnars Osis, Mary E. Handlogten, Jill W. Verlander, I. David Weiner. Gainesville, FL.

5:42 p.m. **The B1 H+⁻ATPase (Atp6v1b1) Subunit Is Required for Non-Type A Intercalated Cell Function and Defense against Alkalosis** — Soline Bourgeois, Jana Kovacikova, Carsten A. Wagner. Zurich, Switzerland.

5:54 p.m. **Comparing the Effect of Combination of Acetazolamide and Hydrochlorothiazide Followed by Furosemide versus Combination of Hydrochlorothiazide and Furosemide Followed by Furosemide in Treating Refractory Edema Associated with Nephrotic Syndrome: A Randomized, Double-Blind Trial** — Mohammad Kazem Fallahzadeh, Mohammad Amin Fallahzadeh, Banafshe Dormanesh, Jamshid Roozbeh, Mohammad Hossein Fallahzadeh, Mohammad Mahdi Sagheb. Dallas, TX.

6:06 p.m. **Tissue Na⁺ in Chronic Kidney Disease and Effect of Renal Transplantation on Na⁺ Stores** — Christoph Kopp, Jonathan Jantsch, Anke Dahlmann, Peter Linz, Daniela Amslinger, Matthias Hammon, Kai-Uwe Eckardt, Friedrich C. Luft, Jens Titze. Erlangen, Germany.

6:18 p.m. **Small-Molecule Inhibitors of Pendrin (SLC26a4) Augment the Diuretic Action of Furosemide** — Onur Cil, Cristina Esteva-Font, Joseph-Anthony Tapia Tan, Puay Wah Phuan, Peter Michael Haggie, Alan S. Verkman. San Francisco, CA.
### Oral Abstract Session

**Balancing Erythropoiesis and Iron Load in CKD**

*Room 6E*

**Moderators:** Kai-Uwe Eckardt, MD, and Steven Fishbane, MD

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
<th>Institutions</th>
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<tbody>
<tr>
<td>4:30 p.m.</td>
<td>Increased Synthesis of Liver Erythropoietin in Patients with Chronic Kidney Disease — FR-OR011</td>
<td>Sophie M. De Seigneux, Stine Lundby, Patrick Saudan, Pierre-Yves F. Martin, Carsten Lundby</td>
<td>Geneva, Switzerland.</td>
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<td>4:42 p.m.</td>
<td>Associations Among Erythrophorenn and Biomarkers of Erythropoiesis and Iron Metabolism, and Treatment of Long-Term Erythropoiesis-Stimulating Agents in Patients on Hemodialysis — HIROKAZU HONDA, Yasuna Kobayashi, Shoko Onuma, Keigo Shibagaki, Toshitaka Yuzu, Keichi Hirao, Toshinori Yamamoto, Naohisa Tomosugi, Takanori Shibata</td>
<td>Tokyo, Japan.</td>
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<td>4:54 p.m.</td>
<td>Dynamics of ESA Resistance Index in Incident Hemodialfiltration and High-Flux Hemodialysis Patients — DANIELE MARCELLI, INGA BAYH, AILEEN GRASSMANN, LAURA SCATIZZI, KATHARINA BRAND, BERNARD J. CANAUD</td>
<td>Bad Homburg, Germany.</td>
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<td>5:06 p.m.</td>
<td>Serum Ferritin Variations and Mortality in Incident Hemodialysis Patients — Tae Hee Kim</td>
<td>Joline L.T. Chen, Elani Streja, Connie Rhee, Yoshitsugu Obi, Csaba P. Kovesdy, Kamyar Kalantar-Zadeh</td>
<td>Busan, South Korea.</td>
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<td>5:18 p.m.</td>
<td>Decreasing ESA Dosage Can Be a Factor of the Increase in Ferritin Under the Administration of Ferric Citrate with Improving ESA Resistance Index — KEITARO YOKOYAMA, Takashi Akiba, Masafumi Fukagawa, Masaaki Nakayama, Hideki N. Hirakata</td>
<td>Tokyo, Japan.</td>
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<td>5:30 p.m.</td>
<td>Triferic Maintains Hemoglobin and Iron Balance Long Term: Open-Label Phase III Extension Studies — CARRIE D. GUSS, RAYMOND D. PRATT, AJAY GUPTA, VIVIAN H. LIN</td>
<td>Northville, MI.</td>
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<td>5:42 p.m.</td>
<td>Longer Sustained Reduction of Serum Hepcidin Level (Hep) During the Treatment of Anemia with Epoetin Beta Pegol (CERA) as Compared to Epoetin Beta (rEPO) in Predialysis Stage-5 CKD Patients — YUSUKE KUROI, KOJI MITSUKI, YUKO YOSHIDA, HOKUTO ARASE, KANEYASU NAKAGAWA, HIDEKI YOTSUEDA, HIDEKI N. HIRAKATA, NAOHISA TOMOSUGI</td>
<td>Fukuoka City, Japan.</td>
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<td>6:06 p.m.</td>
<td>Neutrophil Gelatinase-Associated Lipocalin (NGAL) Is Associated with Iron Status in Anemic Patients with Chronic Kidney Disease — MIN JUNG KIM, IL YOUNG KIM, SOO BONG LEE, JOO HUI KIM, DONG WON LEE, SU MIN PARK, JONG MAN PARK, WOO JIN JUNG, SANG HEON SONG, EUN YOUNG SEONG, HARI RHEE, IHN SOO KWAK</td>
<td>Yangsan, South Korea.</td>
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<td>6:18 p.m.</td>
<td>Safety and Hemoglobin Effect of Sotatercept, Administered Intravenously and Subcutaneously, for Maintenance of Hemoglobin in Hemodialysis Subjects: Interim Analysis of a Phase 2 Study — FRANK DELLANNA, FRANCISCO MADUELL, JOAN FORT, XAVIER WARLING, HEM N. SINGH, WILLIAM T. SMITH</td>
<td>Duesseldorf, Germany.</td>
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Bone and Vascular Disease in CKD

Room 24

Moderators:
Mary B. Leonard, MD, and Stuart M. Sprague, DO, FASN

4:30 p.m. – 6:30 p.m. Oral Abstract Session

The Role of Activin in the CKD-MBD — Keith A. Hruska, Toshifumi Sugatani, Olga A. Agapova, Yifu Fang, Hartmut H. Malluche. St. Louis, MO.

Increase in Trabecular Bone Volume by Inhibition of GSK-3β in Uremic Mice — Narihito Tatsumoto, Masaki Arioka, Shunsuke Yamada, Masanori Tokumoto, Kazuhiko Tsuruya, Takanari Kitazono, Toshiyuki Sasaguri. Higashiku, Fukuoka, Japan.


Chronic Kidney Disease Is Associated with Progressive Increase in Arterial Stiffness and Bone Loss Over 1 Year — Rathika Krishnasamy, Nicole M. Isbel, David W. Johnson, Tony Stanton, David Mudge, Scott B. Campbell, Sven-Jean Tan, Nigel David Toussaint, Carmel M. Hawley. Nambour, Queensland, Australia.

Vascular Calcification Is Mediated by ERK-Dependent Upregulation of Pit1 via Rac1/NADPH/MR Activity — Victor Manuel Barrientos, Néstor Abarzúa, Diego Varela, Rodrigo Alzamora, Luis F. Michea. Santiago, Chile.

Inhibition of Wnt Signaling and Matrix Metalloproteinases Attenuates Calcium and Phosphate Induced Calcifications in Vascular Smooth Muscle Cells — Uwe Querfeld, Veronika Bobb, Christian Freise. Berlin, Germany.

Calciphylaxis Is Characterized by Vitamin K Deficiency and Impaired Matrix Gla Protein Carboxylation — Sagar U. Nigwekar, Rajeev Malhotra, Julia Beth Wenger, Sarah Booth, Ravi I. Thadhani. Boston, MA.

Dialysis with Medium Cut-Off (MCO) Filters Reduces In Vitro Calcification of Human VSMC: Lessons from a Randomized Clinical Trial — Daniel Zickler, Markus Storr, Matthias Girndt, Roman Fiedler, Kevin Willy, Ralf Schindler. Berlin, Germany.

FRIDAY, NOVEMBER 6, 2015

4:30 p.m. – 6:30 p.m.  Oral Abstract Session

Clinical and Basic Issues in Peritoneal Dialysis

Room 26

Moderators:

Olivier Devuyst, MD, PhD, and Anjali B. Saxena, MD, FASN

4:30 p.m. Use of Peritoneal Dialysis (PD) Before and After the Bundled Prospective Payment System (PPS) — Richard Hirth, Taminnie A. Nahra, Adam S. Wilk, Marc Turenne, Jonathan H. Segal, John Wheeler, Kathryn Sleeman, Wei Zhang. Ann Arbor, MI.

4:42 p.m. The Peritoneal Dialysis Outcomes and Practice Patterns Study (PDOPPS): Preliminary Findings from the First Year — Jeffrey Perl, Junhui Zhao, Brian Bieber, Yun Li, Simon J. Davies, David W. Johnson, James A. Sloand, Hideki Kawanishi, Bruce M. Robinson, Francesca Tenorl. Toronto, ON, Canada.


5:18 p.m. Successful Reduction in Peritonitis Rates in U.S. Pediatric Dialysis Units: Results of the SCOPE Collaborative — Alicia Neu, Troy Richardson, John P. Lawlor, Jayne Stuart, Nancy McAfee, Jason Newland, Bradley Warady. Baltimore, MD.

5:30 p.m. Diuretic Prescription and Outcomes Among Peritoneal Dialysis Patients in the BRAZPD Study — Jennifer L. Bragg-Gresham, Ludimila Guedin de Campos, Thyago Proença de Moraes, Ana Elizabeth Figueiredo, Pasqual Barretti, Rajiv Saran, Roberto Pecoits-Filho. Ann Arbor, MI.

5:42 p.m. In-Hospital Mortality Outcome of Cirrhotic Patients with End Stage Renal Disease on Hemodialysis versus Peritoneal Dialysis — Mark Abi Nader, Fernando Rodrigo Aguilar, Michael S. Lipkowitz, Parasuram Krishnamoorthy, Ping Li, Serban A. Dragoi, Alex Montero, Wen Shen, Chanigan Nilubol, Judit Gordon. Washington, DC.

5:54 p.m. AQP1 in Peritoneal Dialysate as Predictive Biomarker of Integrity of the Peritoneal Barrier and Ultrafiltration Efficiency — Simone Corciulo, Maria Celeste Nicoletti, Roberto Corciulo, Roberto Russo, Giuseppe Grandallano, Maria Svelto, Giuseppe Procino, Loreto Gesualdo. Foggia, Italy.


FRIDAY, NOVEMBER 6, 2015

4:30 p.m. – 6:30 p.m. Oral Abstract Session

Clinical Outcomes of Hypertensive Disease

Room 25

Moderators:
Thangamani Muthukumar, MD, and Sandra J. Taler, MD


4:54 p.m. Asymmetric and Symmetric Dimethylarginine and Sympathetic Nerve Traffic After FR-OR043 Renal Denervation in Patients with Resistant Hypertension: A Longitudinal Study — Carmine Zoccali, Gino Seravalle, Fosca Quart Trevano, Domenico Spaziani, Filippo Scalise, Carla Auguadro, Patrizia Pizzini, Giovanni Tripepi, Grazziella D’arrigo, Giuseppe Mancia, Guido Grassi, Francesca Mallamaci. Reggio Calabria, Italy.


5:54 p.m. Invited Lecture: Hypertension Trials in Advanced Kidney Disease — Rajiv Agarwal, MD, MBBS, FASN
4:30 p.m. – 6:30 p.m. Oral Abstract Session

Hereditary Disease of Podocytes and Tubular Epithelia

Room 7

Moderators:
Martin R. Pollak, MD, and Simone Sanna-Cherchi, MD


4:42 p.m. ACTN4 Mutations Lead to Increased Contractility of Human Podocytes in Response to Injurious Stimuli and Matrix Stiffening — Di Feng, Ramaswamy Krishnan, Gabriel Birrane, Julia M. Steinke, Jiayue Zhang, Martin R. Pollak. Boston, MA.

4:54 p.m. Assessing Two Novel Steroid-Resistant Nephrotic Syndrome Candidate Genes Using the Drosophila Model — Sara Gonçalves, Noëlle Lachaussée, Christelle Arrondel, Martin Helmstaedter, Oliver Kretz, Olivia Boyer, Olivier Gribouval, Christine Bole-feyssot, Patrick Nitschke, Marie-Claire Gubler, Tobias B. Huber, Geraldine Mollet, Matias Simons, Corinne Antignac. Paris, France.


5:30 p.m. A Heterozygous Rare Variant in IL-1R Contributes to Autosomal Dominant FSGS in an African American Kindred — Gentzon Hall, Jose A. Gomez, Peter J. Lavin, Eugene C. Kovalik, Peter J. Conlon, Rasheed A. Gbadegesin. Durham, NC.

5:42 p.m. Genetic Investigation and Phenotypic Characterization of Uromodulin Associated Kidney Disease — Christine Gast, Monica Arenas Hernandez, Anthony Marinaki, Gopalakrishnan Venkat-Raman. Portsmouth, United Kingdom.

5:54 p.m. Chaperone Therapy in Stem Cells Derived from Fibroblasts with Missense Mutations in X-Linked Alport Syndrome — Dongmao Wang, Sharon D. Ricardo, Judith A. Savige. Melbourne, Australia.


6:18 p.m. Development and Validation of Targeted Genomic Enrichment and Massively Parallel Sequencing as a Diagnostic Test for Genetic Renal Diseases — Christie P. Thomas, M. Adela Mansilla, Ramakrishna Sompallae, Sara Mason, Anne E. Kwitek, Colleen Ann Campbell, Richard J. Smith. Iowa City, IA.
4:30 p.m. – 6:30 p.m. Oral Abstract Session

**Immunologic Basis of Glomerular Injury**

*Room 23*

*Moderators: Peter J. Nelson, MD, FASN, and Martin H. Oberbarnscheidt, MD, PhD*

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4:30 p.m. The B Cell Survival Cytokine BAFF Promotes Murine Lupus Nephritis via Activation of TACI, Not BAFF Receptor  —  *Shaun W. Jackson, Holly Jacobs, Christopher Thouvenel, Tanvi Arkatkar, Genita Metzler, Nicole Scharping, David Rawlings. Seattle, WA.*

4:42 p.m. B Cell-Intrinsic Interferon Gamma (IFNγ) Signals Promote B Cell Activation and the Development of Lupus Nephritis  —  *Shaun W. Jackson, Nicole Scharping, Holly Jacobs, Tanvi Arkatkar, David Rawlings. Seattle, WA.*


5:06 p.m. Novel Anti-Peroxidasin Antibodies Are Part of the Autoimmune Milieu in Preclinical and Clinical Goodpasture’s Disease  —  *Abraham Scott Mccall, Gautam B. Bhave, Vadim Pedchenko, Agnes B. Fogo, Dustin J. Little, Thomas P. Baker, Stephen W. Olson, Billy G. Hudson. Nashville, TN.*


5:30 p.m. Epitope Spreading in PLA2R1 Is Associated with Bad Prognosis in Membranous Nephropathy  —  *Barbara Seitz-Poleski, Guillaume Dolla, Christine Payre, Sylvia Benzaken, Ghislaine Bernard, Vincent L.M. Esnault, Gerard J. Lambeau. Nice, France.*

5:42 p.m. Intravascular Extensions Allow Renal DC to Capture Bloodborne Antigens and Mediate T Cell Migration into the Kidney  —  *Karim Yatim, Martin H. Oberbarnscheidt. Pittsburgh, PA.*


6:18 p.m. T-Bet Activation in Regulatory T Cells Is Required for General Fitness, Antibody Production and Control of Th1 Responses in Crescentic Glomerulonephritis  —  *Anna Nosko, Malte A. Kluger, Paul Diefenhardt, Simon Melderis, Claudia Wegscheid, Gisa Tieg, Rolf A. Stahl, Ulf Panzer, Oliver M. Steinmetz. Hamburg, Germany.*
FRIDAY, NOVEMBER 6, 2015

4:30 p.m. – 6:30 p.m. Oral Abstract Session

Measuring Risk of Donation and Graft Outcomes

Room 2

Moderators: Simin Goral, MD, and Sundaram Hariharan, MD

4:30 p.m. Predicting the Lifetime Risk of End-Stage Renal Disease in Kidney Donor Candidates — FR-OR068
Morgan Grams, Yingying Sang, Andrew S. Lovey, Kunihiro Matsushita, Shoshana Ballew, Alex R. Chang, Bertram L. Kasiske, Csaba P. Kovesdy, Girish N. Nadkarni, Varda Shalev, Dorry L. Segev, Josef Coresh, Krista L. Lentine, Amit X. Garg. Baltimore, MD.

4:42 p.m. Post Donation Hypertension and Risk of Death and ESRD — Hassan N. Ibrahim, FR-OR069


5:06 p.m. Racial Disparities in Perioperative Complications After Live Kidney Donation — FR-OR071
Krista L. Lentine, Ngan Lam, David A. Axelrod, Mark Schnitzler, Amit X. Garg, Jesse D. Schold, Daniel C. Brennan, Dorry L. Segev. St. Louis, MO.

5:18 p.m. Risk Prediction of End-Stage Renal Disease in Living Kidney Donors — Allan Massie, FR-OR072
Dorry L. Segev, Eric Chow. Baltimore, MD.

5:30 p.m. Factors Influencing Decision About Kidney Transplant: A Survey of Dialysis Patients — FR-OR073
Fareeha Khalil, Ming Wang, Naman Trivedi, Eric Chang, Nasrollah Ghahramani. Hershey, PA.


6:06 p.m. Monitoring of Calcineurin Inhibitors by NFAT-Regulated Gene Expression in De Novo Renal Allograft Recipients — Claudia Sommerer, Martin G. Zeier, Stefan Meuer, Thomas Giese. Heidelberg, Germany.

6:18 p.m. Proteomics of Urinary Exosomes to Identify Biomarkers of BK Virus Infection and Acute Rejection — Luuk Hilbrands, Mathijs van de Vrie, Jeroen Deegens, Johan van der vlag. Nijmegen, Gelderland, Netherlands.
New Insights in the Pathogenesis of Diabetic Nephropathy

Room 8

Moderators:
Yashpal S. Kanwar, MD, PhD, and Kumar Sharma, MD

4:30 p.m. Identification of Signature Long Non-Coding RNAs in the Development of Diabetic Nephropathy — Jianyin Long, Shawn S. Badal, Zengchun Ye, Bernard A. Ayanga, Farhad R. Danesh. Houston, TX.

4:42 p.m. Epigenetic Abnormalities Underlie Increased Expression of Nuclear Receptor PXR in Diabetic Kidney Disease — Atsushi Watanabe, Takeshi Marumo, Wakako Kawarazaki, Mitsuhiko Nishimoto, Nobuhiro Ayuzawa, Daigoro Hirohama, Kohei Ueda, Hiroo Kumagai, Toshiro Fujita. Tokorozawa, Saitama, Japan.

4:54 p.m. Metabolic Control of Chromatin Remodeling by miR-93 in Diabetic Nephropathy — Shawn S. Badal, Yin Wang, Jianyin Long, Farhad R. Danesh. Houston, TX.

5:06 p.m. C-Reactive Protein Promotes Renal Fibrosis in Type 2 Diabetes via CD32-Smad3-mTOR Signaling Pathway In Vivo and In Vitro — Hui Y. Lan, Yong-ke You, Xiao Ru Huang. Shatin, Hong Kong, China.

5:18 p.m. NLRC4 Knockout Ameliorates the Development of Diabetic Nephropathy in Mice — Fang Yuan, Yinghong Liu, Ryan Kolb, Fu-You Liu, Weizhou Zhang. Changsha, China.

5:30 p.m. Mitochondrial Lipid Overload in the Proximal Tubules Leads to Fibrosis — Krisztian Stadler, Claudia Kruger. Baton Rouge, LA.

5:42 p.m. Role of Neuropilin-1 in Glomerular Function and Disease — Christina S. Bartlett, Monika Lucyna Wnuk, Vera Eremina, Chengjin Li, Yashpal S. Kanwar, Jeffrey H. Miner, Maria Pia Rastaldi, Susan E. Quaggin. Chicago, IL.

5:54 p.m. Protein S Protects Podocyte from Injury in Early Diabetic Nephropathy — Fang Zhong, Kim Lee, John C. He. New York, NY.

6:06 p.m. Deletion of SHP-1 in Podocytes Prevents Diabetic Nephropathy — Farah Lizotte, Benoit Denhez, Andréanne Guay, Pedro Miguel Geraldes. Sherbrooke, QC, Canada.

4:30 p.m. – 6:30 p.m.  Oral Abstract Session

Progenitors, Patterning, and Pacemakers

Room 9

Moderators:
Indra R. Gupta, MD, and Jacqueline Ho, MD

4:30 p.m.  Wnt11 Signals from the Ureteric Bud Direct Organization of the Nephron Progenitor Niche


4:54 p.m.  DGCR8-Dependent MicroRNA Biogenesis Is Essential to the Function of Pax8-Positive Epithelial Organs — Roman-Ulrich Mueller, Malte P. Bartram, Elena Amendola, Gabriella De vita, Bernhard Schermer, Thomas Benzing. Koeln, Germany.

5:06 p.m.  Oxygenation and Von Hippel-Lindau Regulate Nephron Progenitor Differentiation — Eline Mukherjee, Jacqueline Ho, Sunder Sims-Lucas. Pittsburgh, PA.

5:18 p.m.  Interplay Between the Tbx2 Transcription Factors and Notch Signaling Directs Nephron Segmentation — Bridgette Drummond, Yue Li, Amanda N. Marra, Christina N. Cheng, Rebecca A. Wingert. Notre Dame, IN.

5:30 p.m.  Dot1l Deficiency Leads to Increased Intercalated Cells and Up-Regulation of V-ATPase B1 in Mice — Zhou Xiao, Lihe Chen, Qiaoling Zhou, Wenzheng Zhang. Houston, TX.

5:42 p.m.  DNs63 Progenitor Cells Pattern the Ureteric Bud Stem Cell Niche and Give Rise to β-Intercalated Cells — Yuwen Li, Jiao Liu, Altaf-M Khan, Zubaida R. Saitudeen, Samir S. El-Dahr. New Orleans, LA.

5:54 p.m.  Critical Role of Talin in Cell-Cell Adhesion and Kidney Development — Sijo Mathew. Nashville, TN.

6:06 p.m.  Loss of Frs2α in Peri-Wolffian Duct Stroma Leads to Abnormal Ureteric Bud Induction and Vesicoureteral Reflux — Deepti Narla, Kenneth A. Walker, Stacey B. Slagle, Caitlin M. Schaefer, Carlton M. Bates. Pittsburgh, PA.

6:18 p.m.  HCN3 Positive Urinary Pacemaker Cells Arise from the Neural Crest — Norman D. Rosenblum, Meghan M. Feeney. Toronto, ON, Canada.
FRIDAY, NOVEMBER 6, 2015

4:30 p.m. – 6:30 p.m. Oral Abstract Session

Recovery from AKI: The Good, the Bad, and the Ugly

Room 1

Moderators:
Manjeri A. Venkatachalam, MBBS, and Joel M. Weinberg, MD

4:30 p.m.
Sox9 Activation Highlights a Cellular Pathway of Renal Repair in the Acutely Injured
FR-OR098 Mammalian Kidney — Sanjeev Kumar, Jing Liu, Paul D. Pang, A. Michaela Krautzberger, Antoine Regnieni, Jill A. McMahon, Andreas Schedl, Benjamin D. Humphreys, Andrew P. McMahon. Los Angeles, CA.

4:42 p.m.
AKI Up-Regulates the Transcriptional Activator Etv4 Specifically in Dedifferentiated Proximal Tubule Where It Drives Epithelial Cell Proliferation and Migration — Susanne V. Fleig, Fengfeng Xu, Flavia G. Machado, Chia-Chun Wu, Rafael Kramann, Motoio Yanagita, Benjamin D. Humphreys. Brookline, MA.

4:54 p.m.
Tubular Regeneration After Acute Kidney Injury Is Limited and Only Driven by Tubular Progenitors — Elena Lazzeri, Anna Julie Peired, Maria Lucia Angelotti, Francesca Becherucci, Duccio Lombardi, Laura Lasagni, Paola Romagnani. Florence, Italy.

5:06 p.m.

5:18 p.m.

5:30 p.m.
Endothelial Sphingosine 1-Phosphate Receptor 1 (S1P1) Is Necessary for Recovery from Ischemia-Reperfusion Injury (IRI) and Prevention of Fibrosis — Heather M. Perry Amandeep Bajwa, Liping Huang, Hong Ye, Kevin Lynch, Mark D. Okusa. Charlottesville, VA.

5:42 p.m.
IL-4/13-Mediated Polarization and Proliferation of Renal Macrophages Are Essential for Recovery from Acute Kidney Injury — Bing Yao, Yinqiu Wang, Ming-Zhi Zhang, Raymond C. Harris. Nashville, TN.

5:54 p.m.
Select ADAM17 Substrates Released from Proximal Tubular Cells Promote Progressive Fibrotic Kidney Disease — Eirini Kefalogianni, Muthulakshmi Muthu, Venkata Sabbisetti, Benjamin D. Humphreys, Joseph P. Bonventre, Andreas Herrlich. Brighton, MA.

6:06 p.m.

6:18 p.m.
Preferential Proliferation in Response to Injury by an Interstitial-Derived Collecting Duct Subpopulation — Joan Li, Jinjin Guo, Jill A. McMahon, Andrew P. McMahon, Melissa H. Little. Brisbane, Australia.
4:30 p.m. – 6:30 p.m.  Oral Abstract Session

**You Are What You Eat: Dietary Risk Factors for CKD**

*Room 10*

**Moderators:**

*Srini Beddhu, MD, and Dena E. Rifkin, MD*

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4:30 p.m.  Net Acid Excretion and Progression of CKD: Results from the Chronic Renal Insufficiency Cohort Study — Julia J. Scialla, John R. Asplin, Mirela A. Dobre, Alex R. Chang, James P. Lash, Chi-yuan Hsu, Radhakrishna Reddy Kallem, L. Lee Hamm, Harold I. Feldman, Jing Chen, Lawrence J. Appel, Cheryl A. Anderson, Myles S. Wolf. Durham, NC.


4:54 p.m.  The Course of Acid Retention without Metabolic Acidosis as GFR Declines in CKD: Ten Year Follow Up — Nimrit Goraya, Jessica Pruszynski, Jan Simoni, Donald E. Wesson. Roundrock, TX.


5:18 p.m.  Sedentary Behavior as a Risk Factor for CKD — Dominique Ferranti, Kate Lyden, Xiaorui Chen, Robert E. Boucher, G. Wei, Srini Beddhu. Salt Lake City, UT.

5:30 p.m.  The Metabolically Healthy Obesity Phenotype and Risk of Incident Kidney Failure — Alex R. Chang, Morgan Grams, Amanda Young, Holly J. Kramer, H. Lester Kirchner. Danville, PA.

5:42 p.m.  The Metabolomic Signature of Diabetic Kidney Disease Predicts Diabetic Renal Disease Progression — Manjula Darshi, Loki Natarajan, Minya Pu, Rintaro Saito, Kumar Sharma. La Jolla, CA.

5:54 p.m.  Invited Lecture: Dietary Intake, Acid Load, and Progression of CKD — Donald E. Wesson, MD, FASN
8:00 a.m. – 9:30 a.m.  
**Plenary Session**  
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9:30 a.m. – 10:00 a.m.  
**Morning Break**  
*Exhibit Halls B-C*

9:30 a.m. – 2:30 p.m.  
**Scientific Exposition**  
*Exhibit Halls B-C*

9:30 a.m. – 4:30 p.m.  
**Posters**  
*Exhibit Halls A-B*  
*Authors will be available at their posters 10:00 a.m. – 12:00 p.m.*

10:30 a.m. – 12:30 p.m.  
**Basic and Clinical Science Sessions**  
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12:30 p.m. – 2:00 p.m.  
**Lunch Break**

12:45 p.m. – 1:45 p.m.  
**Educational Symposia**  
*Please refer to the Guide to Educational Symposia for titles and locations.*  
*Doors will open at 12:30 p.m. Lunch will be provided.*  
*Limited seating; first-come, first-served to fully paid Annual Meeting participants.*  
*Manchester Grand Hyatt*
### Basic and Clinical Science Sessions

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### Afternoon Break

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8:00 a.m. – 9:30 a.m. **Plenary Session**

**Passing of the Gavel, Robert G. Narins Award Presentation, John P. Peters Award Presentation, Belding H. Scribner Award Presentation, State-of-the-Art Lecture**

**Hall D**

*Supported by an independent educational grant from Akebia Therapeutics, Inc.*

Upon completion of this session, the participant will be able to describe the cellular mechanisms of insulin resistance and the implications for obesity, diabetes, and metabolic syndrome.

8:00 a.m. **Passing of the Gavel**
Raymond C. Harris, MD, FASN, Jonathan Himmelfarb, MD, FASN

8:15 a.m. **Robert G. Narins Award Presentation**
Mark L. Zeidel, MD, FASN

8:25 a.m. **John P. Peters Award Presentation**
Roger C. Wiggins, MB, BChir

8:35 a.m. **Belding H. Scribner Award Presentation**
Glenn M. Chertow, MD, MPH, FASN

8:45 a.m. **State-of-the-Art Lecture "Insulin Resistance: What Is Driving the Diabetes Epidemic?"**
Gerald I. Shulman, MD, PhD
NIH and Informational Posters
Fellows Case Reports - V (001-049)
Fellows Case Reports - VI (050-099)
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Education Research: From Classroom to Bedside (130-164)
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AKI: Clinical - Biomarkers/Epidemiology (187-235)
AKI: Basic - II (236-284)
Apoptosis, Proliferation, Autophagy, Cell Senescence, Cell Transformation (285-316)
Growth Factor Signaling in Renal Disease (317-333)
Cell Biology: Glomerular - II (334-361)
Diabetes Mellitus and Obesity: Basic-Experimental - II (362-418)
Proteinuria, Fibrosis, and Their Modulators (419-457)
Extracellular Matrix Biology, Fibrosis, Cell Adhesion - II (458-490)
Genetic Analysis and Epidemiology of Common Kidney Diseases (491-528)
Drug Pharmacokinetics and Pharmacogenomics in CKD (529-556)
Mineral Disease: CKD-Bone (557-584)
Vascular Calcification: From Bench to Bedside (585-615)
Hypertension: Clinical (616-669)
CKD: Estimating Equations, Incidence, Prevalence, Special Populations (670-694)
CKD: Health Services, Disparities, and Prevention (695-732)
CKD: Cognitive Dysfunction, Depression, and Quality of Life (733-748)
Geriatric Nephrology (749-773)
Dialysis: Planning for the End Is a Little Shorter (774-794)
Dialysis: Anemia and Iron Metabolism (795-830)
Home and Frequent Dialysis (831-846)
Diagnostic and Therapeutic Advances in PKD (847-891)
Fluid, Electrolyte, and Acid-Base Disorders (892-931)
Acid Base: Basic (932-946)
Transplantation: Clinical and Translational - III (947-999)
Transplantation: Clinical and Translational - IV (1000-1054)
Transplantation: Clinical and Translational - V (1055-1090)
Late-Breaking: Clinical Trials

Please note that this book contains poster sessions but not individual abstract titles and authors. For abstract titles, authors, and more, please refer to the Kidney Week Mobile App, the “Locate Me” Kiosks for Posters and Exhibits in the exposition halls, or the Abstract Supplement PDF at www.asn-online.org/KidneyWeek.
Cell Plasticity and Repair after AKI

AKI activates a program of events in which different cellular compartments undergo a coordinated series of phenotypic and functional changes required for tissue repair. This session discusses how these cellular compartments participate in this coordinated response, as well as the lessons we have learned from the comparative analysis of the cellular repair mechanisms in different organs and species.

Upon completion of this session, the participant will be able to: 1) describe cellular compartments involved in functional and dysfunctional repair in kidneys; 2) explain basic mechanisms of epithelial repair after AKI in mice; and 3) discuss overlap and differences between epithelial repair and regeneration in zebrafish kidneys.

Core Competency: Medical Knowledge

Moderators:
Neil A. Hukriede, PhD, and Motoko Yanagita, MD, PhD

10:30 a.m. Mechanisms of Epithelial, Interstitial, and Vascular Repair after AKI
Benjamin D. Humphreys, MD, PhD, FASN

11:00 a.m. Cell Plasticity and Repair after Acute Lung Injury
Harold A. Chapman, MD

11:30 a.m. Mechanisms of Renal Repair and Regeneration in Zebrafish
Alan J. Davidson, PhD

12:00 p.m. Macrophage Plasticity and Tissue Repair after AKI
Jeremy Stuart Duffield, MBChB, MD, PhD
Recent advances have provided information concerning the sensing of chloride. WNKs have been implicated as potential chloride-sensing kinases. In this session, investigators that are experts in this field provide their insights.

Upon completion of this session, the participant will be able to: 1) describe the role of WNK1 in chloride sensing; 2) explain the role of WNK4 and WNK3 in chloride sensing; 3) describe the role of WNKs in regulation of cystic fibrosis transmembrane conductance regulator (CFTR); and 4) discuss chloride sensing in the macula densa.

Core Competency: Medical Knowledge

Moderators:
Kerim Mutig, DrMed, and Pablo A. Ortiz, PhD

10:30 a.m.  WNK1 as a Chloride Sensor
Elizabeth J. Goldsmith, PhD

11:00 a.m.  Which WNKs Are Critical for Sensing Chloride?
Gerardo Gamba, MD, PhD

11:30 a.m.  WNK1 Turns CFTR from a Chloride Channel to a Bicarbonate Channel
David C. Whitcomb, MD, PhD

12:00 p.m.  Chloride Sensing in the Regulation of Na+/HCO3- Transporters
Shmuel Muallem, PhD
AKI Prevention: New Techniques that You Are Not Using

Room 20C/D

This session reviews novel methods for preventing AKI in a variety of settings, including contrast and surgical. The interventions discussed are new and upcoming therapies that are currently not commonly used.

Upon completion of this session, the participant will be able to: 1) identify balanced intravenous solutions and their impact on AKI; 2) discuss the influence of statins to prevent AKI; 3) explain the method of remote ischemic preconditioning and how it influences AKI; and 4) describe high urine flow systems and their influence on AKI.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:  
Areef Ishani, MD, and Sankar D. Navaneethan, MD, MPH, FASN

10:30 a.m. Are Balanced IV Solutions the Solution?  
Edward D. Siew, MD

11:00 a.m. Remote Ischemic Preconditioning: What Is It? How Does It Work? Does It Work?  
Kieran McCafferty, MD

11:30 a.m. Statins for AKI Prevention  
Amber O. Molnar, MD

12:00 p.m. High Urine Flow System May Prevent CIN: Myth or Reality?  
Richard J. Solomon, MD, FASN
10:30 a.m. – 12:30 p.m.  
Clinical Practice Session

Dialysis Vascular Access: From Biology to Bundling

Room 5

This session emphasizes the concept that vascular access dysfunction is a multidisciplinary problem that can only be addressed through a multidisciplinary approach. The initial topic presentations in this session focus on vascular biology, epidemiology, and novel therapeutics in this field. These presentations are followed by lectures on innovation in the context of the workforce and reimbursement pathways associated with dialysis vascular access—making the point that the scientific and business aspects of vascular access are inextricably linked.

Upon completion of this session, the participant will be able to: 1) describe current concepts related to the vascular biology and epidemiology of dialysis vascular access; 2) document recent therapeutic advances in this field; 3) explain the complexities associated with a very multidisciplinary workforce in this area; and 4) identify possible future innovative reimbursement pathways for dialysis vascular access.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Charmaine E. Lok, MD, MPH, and Alexander S. Yevzlin, MD

10:30 a.m.  Epidemiology and Vascular Biology of AVF Maturation: Lessons from the HFM Study
Laura M. Dember, MD, FASN

11:00 a.m.  Beyond the Balloon: Bioengineering, Novel Therapies, and Process of Care
Prabir Roy-Chaudhury, MD, PhD, FASN

11:30 a.m.  Teaching and Training in Vascular Access: Mobilizing a Multidisciplinary Workforce
Deborah J. Brouwer-Maier, RN, CNN

12:00 p.m.  Improving Vascular Access Care through Innovations in Reimbursement and Bundling
Timothy A. Pflederer, MD
No Good Deed Should Be Punished: Reconsidering Incentives for US Kidney Donors

Room 6B

Despite the success of kidney transplantation, the current system of organ donation is not meeting the growing demand, resulting in average wait times for a kidney transplant of almost 5 years. The annual mortality and removal from the waiting list of thousands of listed candidates has prompted calls in both the media and among transplant professionals alike for consideration of financial incentives for organ donation, an issue that remains controversial.

Upon completion of this session, the participant will be able to: 1) describe the global status of incentives in organ donation; and 2) discuss the pros and cons of a system of financial incentives in the context of kidney donation in the United States.

Core Competency: Professionalism, Patient Care and Procedural Skills, Practice-based Learning and Improvement

Moderators:
Roy D. Bloom, MD, and Titte Srinivas, MD

10:30 a.m. Incentives in Kidney Donation: A Global Perspective
John S. Gill, MD

11:00 a.m. Case against Financial Incentives for Kidney Donation in the United States
David J. Cohen, MD

11:30 a.m. Ethical Considerations Regarding Incentives for Kidney Donors
Elisa J. Gordon, PhD, MPH

12:00 p.m. Pilot Studies to Financially Incentivize Kidney Donation in the United States: Why Now and How?
Robert S. Gaston, MD
Non-Framingham Risk Factors for Cardiovascular Disease in the CKD Population

Room 6A

Cardiovascular disease (CVD) remains the leading cause of morbidity and mortality in the CKD population. Traditional risk factors may not fully explain the burden of disease. This session examines the evidence for novel risk factors and discusses potential areas for future interventions.

Upon completion of this session, the participant will be able to: 1) describe the role of underlying inflammatory conditions in the pathogenesis of CVD; 2) explain the role of hormonal deficiency and vessel size in CVD; and 3) critically appraise new, nontraditional risk factors for CVD.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators: George A. Kaysen, MD, PhD, FASN, and Abhijit V. Kshirsagar, MD

10:30 a.m.  Periodontal Disease, CKD, and CVD: True, True, and Related?
Vanessa Grubbs, MD, MPH

11:00 a.m.  Inflammation and CVD: New Insight from Monocytes and Macrophages
Anjali Ganda, MD

11:30 a.m.  Carbamylated Proteins in CKD: A Role for Atherosclerosis
Anders H. Berg, MD, PhD

12:00 p.m.  Hormones and CVD: Time to Treat the “Low T’s” (Testosterone and Thyroid)?
Juan Jesus Carrero, PhD, PharmD
Edema is a common complication of renal and nonrenal disease. This session focuses on pathophysiologic mechanisms leading to edema in various syndromes. Recent information regarding a key role for epithelial sodium channel (ENaC) dysregulation in edema of nephrotic syndrome are addressed, contrasting with edema of heart failure, vasodilators, CKD/ESRD, liver disease, inflammation, and lymphatic disease.

Upon completion of this session, the participant will be able to: 1) recognize different syndromes of edema; 2) describe the important role and mechanism of primary renal salt retention in edema of nephrotic syndrome; and 3) apply a rational approach to use of diuretics and in edematous states.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:
Søren Nielsen, MD, PhD, and Eric Siddall, MD

10:30 a.m. General Mechanisms of Edema Formation
Ronald J. Korthuis, PhD

11:00 a.m. Role of ENaC Dysregulation by Serum Proteases in the Nephrotic Syndrome
Thomas R. Kleyman, MD

11:30 a.m. Edema of Nephrotic Syndrome: Beyond ENaC
Detlef Bockenhauer, MD

12:00 p.m. Treatment of Nephrotic Edema: Rational Use of Diuretics and Beyond
Jai Radhakrishnan, MBBS, MD, FASN
10:30 a.m. – 12:30 p.m. Oral Abstract Session

High-Impact Clinical Trials

Hall D

Session details were not available at the time of printing. Please check the Kidney Week Mobile App or the ASN website for session details.
ADPKD remains a largely untreatable disease with complex pathogenicity. Recent studies suggest that ADPKD severity is strongly associated with transport of polycystin-1 to the cell membrane. ADPKD severity is also linked to metabolic changes in kidney cells. Mouse models of ADPKD have revealed new ADPKD signaling pathways and novel functions of polycystins in normal development. This session reviews genetic factors related to ADPKD severity, new models of ADPKD and disease signaling pathways, and the impact of cellular content on polycystins.

Upon completion of this session, the participant will be able to: 1) identify genetic factors related to ADPKD severity; 2) discuss new models of ADPKD and disease signaling pathways; 3) describe the impact of cellular context on the function of polycystins; and 4) explain new functions of polycystins.

Core Competency: Medical Knowledge

Moderators:

Lisa M. Guay-Woodford, MD, and Vicente E. Torres, MD, PhD
### Aging and the Kidney

**Room 8**

The proportion of older people in the general population is increasing worldwide. This demographic change has important consequences for nephrology. Nephrologists have to manage more elderly patients with renal diseases and also older patients with kidney transplants. This session addresses the pathomechanisms of kidney senescence, renal biopsy pathology, hypertensive kidney disease, and other diseases of the elderly leading to transplantation.

Upon completion of this session, the participant will be able to: 1) explain mechanisms of kidney aging; 2) describe morphological and functional properties of aging kidneys; 3) discuss impacts of kidney aging on transplantation; and 4) explain the relation between aging, hypertension, and renal disease.

Core Competency: Medical Knowledge

**Moderators:**
Mark Haas, MD, PhD, and Marcello Tonelli, MD

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<th>Time</th>
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<tr>
<td>2:00 p.m.</td>
<td>Aging, Hypertension, and Renal Disease</td>
<td>Sharon Anderson, MD, FASN</td>
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<td>2:30 p.m.</td>
<td>Mechanisms of Kidney Aging: Senescence, Klotho, and Beyond</td>
<td>Anette Melk, MD, PhD</td>
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<td>3:00 p.m.</td>
<td>How Does Aging Increase Disease Susceptibility?</td>
<td>Jan van Deursen, PhD</td>
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<td>3:30 p.m.</td>
<td>What Is Aging Nephropathy?</td>
<td>Stuart J. Shankland, MD, FASN</td>
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Bad to the Bone: Risk Factors for Bone Fragility in CKD Patients

Room 6F

Supported by an independent educational grant from OPKO Renal.

Many adults with CKD will fall and fracture. This session reviews and summarizes recent epidemiologic studies. Furthermore, novel directions in terms of mechanisms for bone fragility in CKD and the general population are presented.

Upon completion of this session, the participant will be able to: 1) describe the multifactorial contribution to bone fragility in CKD; 2) discuss the epidemiologic association between microvascular disease, early CKD, and fractures; 3) explain the contribution of inflammation to disordered mineral metabolism and bone fragility; 4) describe the role of bone marrow fat in bone strength; and 5) identify the effects of medical and surgical parathyroidectomy on bone fragility and mineral metabolism.

Core Competency: Medical Knowledge

Moderators:
Bryan R. Kestenbaum, MD, and Thomas Nickolas, MD, MPH

2:00 p.m. Epidemiology of Microvascular Disease, CKD, and Bone Fractures
Kyla Lynn Naylor

2:30 p.m. Effects of Inflammation on Bone Metabolism
Michelle Denburg, MD

3:00 p.m. Contribution of Bone Marrow Fat to Bone Fragility
Clifford J. Rosen, MD

3:30 p.m. Effects of Medical and Surgical Parathyroidectomy on Bone Fragility
Hirotaka Komaba, MD, PhD
Biomarkers in AKI: Can We Beat Creatinine and Urine Output?

Room 6A

The diagnosis of AKI relies on changes in urine output and creatinine. Whether newer markers of kidney injury will change the approach to AKI diagnosis remains uncertain. This session rigorously reviews the state of the art in AKI biomarker science.

Upon completion of this session, the participant will be able to: 1) describe microRNAs as possible biomarkers of AKI; 2) review metabolomics signatures of AKI; and 3) explain the role of biomarkers for cardiac surgery and monitoring nephrotoxicity.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators: Jay L. Koyner, MD, and Ravindra L. Mehta, MD, FASN

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<th>Time</th>
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<tr>
<td>2:00 p.m.</td>
<td>Real-Time mGFR Monitoring in AKI</td>
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<td>Bruce A. Molitoris, MD, FASN</td>
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<td>2:30 p.m.</td>
<td>Qualifying Nephrotoxicity Biomarkers for the FDA</td>
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<td>Irene Nunes, PhD</td>
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<td>3:00 p.m.</td>
<td>Cell Cycle Arrest Biomarkers</td>
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<td>John A. Kellum, MD</td>
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<td>3:30 p.m.</td>
<td>Biomarkers of Cirrhosis: Beyond FeNa</td>
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<td>Justin Miles Belcher, MD, PhD</td>
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Traditional CKD risk factors include blood pressure, glucose, lipid profiles, and albuminuria. However, the answers to why some patients progress and others continue to have stable kidney function are not straightforward at present. This session examines risk factors for CKD progression that reach beyond the traditionally identified factors.

Upon completion of this session, the participant will be able to: 1) describe the role of risk factors for CKD progression and how to profile patients for multiple renal risks; 2) evaluate the role of metals and environmental exposures as novel risk factors for CKD; 3) explore data regarding genetic risk factors for CKD; and 4) discuss the short-term effect of drugs on multiple risk markers and how they can translate into long-term renal and cardiovascular outcomes.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Dick de Zeeuw, MD, PhD, and Gearoid M. McMahon, MbChB
Emerging Concepts about the Causes and Treatment of VUR and UTI

Room 9

This session discusses emerging concepts and guidelines related to the diagnosis and treatment of both urinary tract infection (UTI) and recurrent UTI, as well as the role of imaging in UTI and recurrent UTI. The pathophysiologic mechanisms involved in vesicoureteral reflux (VUR) and UTI also are discussed, as well as the potential for novel future therapies based on emerging insights related to innate immunity in the urinary tract.

Upon completion of this session, the participant will be able to: 1) discuss emerging approaches to the diagnosis and treatment of UTIs; 2) describe recent insights into the genetic basis for VUR; 3) explain pathophysiologic mechanisms involved in the development of VUR and UTI; and 4) describe the recent advances in understanding the role of innate immunity in UTIs.

Core Competency: Patient Care and Procedural Skills, Practice-based Learning and Improvement

Moderators:
Brian Becknell, MD, PhD, and Tarak Srivastava, MD

2:00 p.m. Emerging Approaches to the Diagnosis and Treatment of UTI and Recurrent UTI
Saul P. Greenfield, MD

2:30 p.m. Recent Advances in Understanding the Genetic Basis for VUR
Adrian S. Woolf, MD

3:00 p.m. Pathophysiologic Mechanisms in VUR and UTI
Indra R. Gupta, MD

3:30 p.m. Role of Innate Immunity in UTI
John David Spencer, MD
Engineering a New Kidney

Room 26

Despite the potential of inducible pluripotent stem cells (iPSCs) in regenerative medicine, formidable cell biological and bioengineering challenges still have to be addressed before we can use this technology to build functioning artificial kidneys. This session focuses on the major challenges using directed cell differentiation to generate kidney cells, as well as the bioengineering platforms and strategies that are being developed to build functioning organs with these cells.

Upon completion of this session, the participant will be able to: 1) describe progress and challenges of using directed differentiation of iPS cells to generate different renal cell type; and 2) discuss approaches that are being used and challenges faced with the use of decellularized matrices to build vascularized, functioning kidneys.

Core Competency: Medical Knowledge

Moderators:
Alan J. Davidson, PhD, and Leif Oxburgh, PhD

2:00 p.m. Directed Differentiation of Human iPSCs to Make Renal Epithelium
Albert Q. Lam, MD

2:30 p.m. Engineering Pancreatic Islets from Human IPSCs for the Treatment of Type 1 Diabetes
Maria Cristina Nostro, PhD

3:00 p.m. Using Decellularized Scaffolds to Build Functional Organs: Vasculature
Jason Wertheim, MD, PhD

3:30 p.m. Using Decellularized Scaffolds to Build Functional Organs: Epithelium
Harald C. Ott, MD
2:00 p.m. – 4:00 p.m. Basic and Clinical Science Session

Lipids and Fatty Acids in Kidney Disease

Room 25

This session discusses the potential role of lipids and fatty acids injuring kidney epithelial cells. Over the last 5 years, there have been significant advances in the understanding of the pathogenesis of lipids and fatty acids in nephrotic syndrome and CKD, which are highlighted in this session.

Upon completion of this session, the participant will be able to: 1) explain lipids and fatty acids in nephrotic syndrome; 2) explain lipids and fatty acids in CKD; and 3) discuss mechanisms of hypertriglyceridemia and its relationship with proteinuria.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Lionel C. Clement, PhD, and George A. Kaysen, MD, PhD, FASN

2:00 p.m. Lipids in the Pathogenesis of Nephrotic Syndrome
Jun-Jae Chung, PhD

2:30 p.m. Fatty Acid Oxidation in Kidney Fibrosis
Katalin Susztak, MD, PhD

3:00 p.m. Hypertriglyceridemia in Nephrotic Syndrome
Sumant S. Chugh, MD, MBBS, FASN

3:30 p.m. Sphingolipids in Glomerular Disease
Alessia Fornoni, MD, PhD, FASN
Pathogenesis of Microvascular Damage in the Kidney

Room 5

Endothelial damage to the kidney can result in the dysregulation of the clotting cascade, resulting in vascular thrombus formation. This defect has been attributed to various causes such as catastrophic anti-phospholipid and thrombotic microangiopathy (TMA) syndromes. This session focuses on providing the most recent and novel findings to better understand the pathogenesis of this disease and the available therapeutic options.

Upon completion of this session, the participant will be able to: 1) describe the pathogenesis of TMA; 2) discuss the genetic causes of TMA; and 3) recommend the therapeutic modalities for TMA.

Core Competency: Professionalism, Medical Knowledge, Interpersonal and Communication Skills

Moderators:
Carla M. Nester, MD, and Simone Sanna-Cherchi, MD

2:00 p.m. Genetics of Thrombotic Microangiopathy
Massimo Attanasio, MD

2:30 p.m. Inhibition of mTORC in Anti-Phospholipid Syndrome
Guillaume Canaud, MD, PhD

3:00 p.m. Complement Activation in Thrombotic Microangiopathy
Christoph Licht, MD, FASN

3:30 p.m. Role of VEGF in Thrombotic Microangiopathy
Susan E. Quaggin, MD
Renal Microcirculation in Clinical Disease

Room 2

ASN thanks its Biosciences Research Advisory Group for assistance with this session.

Microvascular adaptation to the metabolic local conditions (“microvascular plasticity”) may depend on the original insult triggering microvascular proliferation or rarefaction, either of which can contribute to progressive renal injury. Surprisingly, the renal microcirculation is an underappreciated therapeutic target. This session reviews the mechanisms for loss and excessive formation of intrarenal microvessels in response to injury and examines novel interventions to modulate the renal microcirculation.

Upon completion of this session, the participant will be able to: 1) describe effects of risk factors on the renal microcirculation; 2) discuss mechanisms and consequences of renal microvascular aberrations; and 3) recommend potential therapeutic approaches to improve the renal microcirculation.

Core Competency: Medical Knowledge

Moderators:
Philip A. Kalra, MBChB, MD, and Lilach O. Lerman, MD, PhD, FASN

2:00 p.m. Renal Microcirculation in Diabetes
Michael S. Goligorsky, MD, PhD

2:30 p.m. Renal Microcirculation in Dyslipidemia and Obesity
Alejandro R. Chade, MD

3:00 p.m. Renal Microcirculation in Renal Macrovascular Disease
Stephen C. Textor, MD

3:30 p.m. Microcirculation in Diabetic Retinopathy
Balamurali K. Ambati, MD, PhD
Uremic Cardiomyopathy: What We Know and Where We Are Going

Room 6C

Supported by an independent educational grant from AstraZeneca and FibroGen.

This session reviews the past and present of uremic cardiomyopathy, emphasizing pathogenesis. Potential novel factors, such as klotho, calcium signaling, and the cardiac fibroblast, involved in the pathogenesis of cardiac hypertrophy in the setting of CKD are discussed, as well as what the future holds for the role of these factors in changing clinical practice.

Upon completion of this session, the participant will be able to: 1) explain the history and current evidence for the pathogenesis of uremic cardiomyopathy; 2) describe the role of cardiac fibroblasts in the development of cardiac hypertrophy in the CKD setting; 3) discuss signaling calcium versus contractile calcium in the pathogenesis of cardiac hypertrophy; and 4) review the role of klotho in the pathogenesis of uremic cardiomyopathy.

Core Competency: Medical Knowledge

Moderators:
Keith A. Hruska, MD, and Orson W. Moe, MD

2:00 p.m. Past and Present of Uremic Cardiomyopathy
Alfred K. Cheung, MD

2:30 p.m. Mending a Broken Heart by Reprogramming Fibroblasts
Li Qian, PhD

3:00 p.m. Role of Renalase in Cardiac Hypertrophy and CKD
Gary V. Desir, MD

3:30 p.m. Klotho Deficiency and Uremic Cardiomyopathy
Chou-Long Huang, MD, PhD
The incidence of AKI is rising. There remains little evidence basis regarding best practices to promote renal recovery in this population. These concerns, coupled with recent policy clarification from the CMS, have limited dialysis placement for those with AKI. This session provides an overview of AKI in the United States, recent epidemiological trends, current practice, and treatment patterns. Best models of AKI care are discussed alongside what policy changes may best support these approaches to treating AKI.

Upon completion of this session, the participant will be able to: 1) explain recent trends causing growth of AKI in the US; 2) recommend different approaches to studying AKI, including best practices to promote renal recovery; 3) describe how federal payment policy currently influences care, both positively and negatively; and 4) discuss potential policy improvements to support optimal AKI care.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators: Kevin F. Erickson, MD, and Raymond M. Hakim, MD, PhD

2:00 p.m. Epidemiology of AKI Trends in the United States
Jorge Cerda, MD, FASN

2:30 p.m. Practices and Process: Outpatient Provision of Dialysis for AKI
Michael Heung, MD

3:00 p.m. Inpatients to Outpatients: Reimbursement and Legal Barriers to Dialysis for AKI
Anitha Vijayan, MD, FASN

3:30 p.m. Public Policy Options: How to Support Optimal AKI Patient Care Models
Glenn Matthew Chertow, MD, MPH, FASN
ClinicoPathologic Conference

Room 20A/B

This session features a pediatric renal biopsy presented by a pathologist and a nephrologist discussant. The case is didactic but likely complex, generating a clinical differential diagnosis. The renal biopsy findings may be, in part, unexpected. Final diagnosis includes review of the literature and recommendations for patient management.

Upon completion of this session, the participant will be able to: 1) describe clinical and laboratory data of a complex and challenging pediatric case; 2) discuss the nephrologist’s differential diagnosis based on the clinical and laboratory findings; 3) explain the histopathologic findings and differential diagnosis; and 4) summarize the nephrologist’s treatment proposals and patient management.

Core Competency: Medical Knowledge

Moderator:
Paola Romagnani, MD

2:00 p.m. Clinical Discussant
Victoria F. Norwood, MD

3:00 p.m. Pathology Discussant
Jan U. Becker, MD
Fellows Poster Discussion

Room 3

This session showcases the breadth of achievement among nephrology fellows by highlighting top-rated posters submitted by fellows. Listen to the oral presentations and lively question-and-answer sessions, to learn about the cutting-edge work performed by those who will be spearheading advances in 21st century kidney research and treatment.

Please note: CME/CNE/CPE credit will not be awarded for this activity.
Highlights from the ERA-EDTA Congress in London

Room 1

ASN thanks the European Renal Association – European Dialysis and Transplant Association for assistance with this session.

This session provides the most interesting aspects of glomerular diseases, AKI, mineral and bone metabolism, and hypertension in CKD patients presented during the ERA-EDTA Congress in London, May 2015.

Upon completion of this session, the participant will be able to discuss the latest aspects of glomerular diseases, AKI, mineral and bone metabolism, and hypertension in CKD patients.

Moderators:
Markus Ketteler, MD, and Andrzej Wieck, MD, PhD

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<td>2:00 p.m.</td>
<td>Glomerular Diseases</td>
<td>Jürgen Floege, MD</td>
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<td>2:30 p.m.</td>
<td>CKD–MBD</td>
<td>Markus Ketteler, MD</td>
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<td>3:00 p.m.</td>
<td>Hypertension and CKD</td>
<td>Francesca Mallamaci</td>
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<td>3:30 p.m.</td>
<td>AKI</td>
<td>Mehmet S. Sever, MD</td>
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Several aspects of nutrient intake have a direct or indirect effect on the development and/or progression of CKD. Despite the long history of nutritional interventions, they have not caught on as widely applied and routine therapeutic measures used to prevent and treat CKD. There have been renewed efforts in the last decade to revitalize the field of nutritional interventions in CKD by exploring alternative strategies that address the various impediments towards practical implementation. This session reviews the rationale behind using the different nutritional interventions as renoprotective therapies, the current evidence supporting or refuting the use of different nutritional interventions for renoprotection, and the application to clinical practice.

Upon completion of this session, the participant will be able to: 1) describe the rationale behind using the different nutritional interventions as renoprotective therapies; 2) critically assess the current evidence supporting or refuting the use of different nutritional interventions for renoprotection; and 3) apply the knowledge gained from this session in clinical practice.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Timmy C. Lee, MD, MPH, FASN, and Robert F. Reilly, MD

2:00 p.m.  Dietary Phosphorus and Kidney Health
Orlando M. Gutierrez, MD

2:30 p.m.  Treatment of CKD with Sodium Restricted Diet
Joseph A. Vassalotti, MD, FASN

3:00 p.m.  Nephrotoxicity of Metabolic Acidosis
Julia J. Scialla, MD

3:30 p.m.  Diet Influences on Gut Flora and Their CKD Effects
Pieter Evenepoel, MD, PhD
Genomic Applications in Glomerular Diseases, Including the Michelle P. Winn, MD, Endowed Lectureship

Room 20C/D

ASN gratefully acknowledges Duke University School of Medicine, the school's Division of Nephrology, and several individuals for support of the Michelle P. Winn, MD, Endowed Lectureship.

Gene mutation technologies are advancing quickly, making molecular genetic diagnosis a reality. Podocyte gene mutations are identified in sporadic and hereditary nephrotic syndrome. Likewise, knowledge on the assembly and regulation of the complement system has increased in recent years, and the spectrum of complement-associated renal disease emerged as an important new group of diseases. Understanding of this newly emerged group of diseases is challenging but has enormous clinical consequences. This session reviews the latest on podocyte mutations associated with hereditary and sporadic steroid-resistant nephrotic syndrome and the significance of APOL1 and MYH9 genetic abnormalities in non-African American patients.

Upon completion of this session, the participant will be able to: 1) discuss the latest on podocyte mutations associated with hereditary and sporadic steroid-resistant nephrotic syndrome; and 2) explain the significance of APOL1 and MYH9 genetic abnormalities in non-African American patients.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Matthias Kretzler, MD, and William E. Smoyer, MD

2:00 p.m.  Genomics of FSGS—The Michelle P. Winn, MD, Endowed Lectureship
Corinne Antignac, MD, PhD

2:30 p.m.  Podocyte Gene Mutations in Sporadic FSGS
Rasheed A. Gbadegesin, MD

3:00 p.m.  Susceptibility Genes in FSGS
Jeffrey B. Kopp, MD, FASN

3:30 p.m.  Podocyte Gene Mutations in Hereditary Steroid-Resistant Nephrotic Syndrome
Jameela Abdulaziz Kari, MD, PhD
Lessons from Research on Iron Metabolism

Room 7

New insights into iron handling have been generated recently. Review of these developments should serve as an exciting example of the evolution of translational research with direct clinical application. This session reviews new developments in the regulation of iron handling, potential clinical applications to be tested in future trials, and findings from basic research with knowledge from studies of iron replacement in CKD.

Upon completion of this session, the participant will be able to: 1) discuss new developments in the regulation of iron handling; 2) describe potential clinical applications to be tested in future trials; and 3) integrate findings from basic research with knowledge from studies of iron replacement in CKD.

Core Competency: Medical Knowledge

Moderators:
Herbert Y. Lin, MD, PhD, FASN, and Dorine W. Swinkels, MD, PhD

2:00 p.m. Update on Regulation of Iron Homeostasis
Tomas Ganz, MD, PhD

2:30 p.m. Iron Cycle in CKD: Lessons from Genetics and Experimental Models
Jodie L. Babitt, MD

3:00 p.m. Understanding Iron: Promoting Its Safe Use in ESRD Patients
Nosratola D. Vaziri, MD

3:30 p.m. Summary of Recent Trials of Iron-Based Therapies in Patients with CKD and ESRD
Jamie P. Dwyer, MD
Renal handling of sodium is undisputed as a contributory factor to many, if not most, forms of hypertension. This session reviews and updates the traditional Guytonian view of hypertension. New evidence for the role of the sympathetic nervous system, endothelial factors, WNK kinases, and cytokines in sodium handling and hypertension are presented. The relationship between dietary potassium, sodium, and hypertension are also presented.

Upon completion of this session, the participant will be able to: 1) describe the role of sodium balance and the pathogenesis of hypertension; 2) explain the role of the nervous system and its impact on sodium transport and hypertension; 3) describe the association of dietary potassium and sodium with hypertension; and 4) discuss recent experimental evidence for immune dysregulation, TGFβ, and alterations in endothelial cell function in salt sensitivity.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Rajiv Agarwal, MD, MBBS, FASN, and Matthew R. Weir, MD

2:00 p.m.  
**Salt, Kidney, and Hypertension: The Post-Guyton Era**
*Thomas M. Coffman, MD, FASN*

2:30 p.m.  
**Nerves, Salt, and Hypertension**
*David H. Ellison, MD, FASN*

3:00 p.m.  
**Dietary Salt: Low, Medium, or High?**
*Johannes F. Mann, MD*

3:30 p.m.  
**What Is Salt Sensitivity?**
*Paul W. Sanders, MD*
2:00 p.m. – 4:00 p.m. Translational Session

What’s Hot and What’s CTOT? An Update on the Clinical Trials in Organ Transplantation

Room 23

Almost a decade has passed since the inception of the NIH-sponsored clinical trials in organ transplantation (CTOT) research program, a consortium formed to conduct clinical and mechanistic studies and intended to lead to improved patient and graft survival. To date, several multicenter trials have been undertaken to investigate noninvasive biomarkers that may guide immunosuppression use, as well as predict post-transplant outcomes.

Upon completion of this session, the participant will be able to: 1) state the various noninvasive methods being investigated in kidney recipients; 2) describe the utility of urinary biomarkers in kidney transplantation; 3) explain the current state of biomarkers for predicting allograft outcomes; and 4) discuss whether biomarkers can be used to guide immunosuppression withdrawal in transplantation.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators: Milagros D. Samaniego-Picota, MD, FASN, and Julie M. Yabu, MD, FASN

2:00 p.m. Can Noninvasive Markers Predict Outcomes in Kidney Recipients?
Donald E. Hricik, MD

2:30 p.m. Urinary Biomarkers for Predicting Rejection
Manikkam Suthanthiran, MD, FASN

3:00 p.m. Proteogenomics in Kidney Transplantation: Ready for Primetime?
Daniel R. Salomon, MD

3:30 p.m. Identifying Who Does and Does Not Need Immunosuppression after Kidney Transplantation
Kenneth A. Newell, MD, PhD
Clinical Conundrums at the Nexus of Diabetes and the Kidney

Room 20C/D

ASN thanks its Hypertension Advisory Group for assistance with this session.

The most common cause of CKD leading to premature death and ESRD in the developed and developing worlds is diabetes. It is also one of the most frequent comorbidities in CKD, irrespective of the cause. This session addresses emerging issues influenced by the interface of diabetes and CKD that directly impact patient care.

Upon completion of this session, the participant will be able to: 1) explain how low eGFR biases measurement of hemoglobin A1C, the most frequently used biomarker for assessment of glycemia; 2) develop practical strategies for assessment of glycemia in CKD; 3) review the role of physical activity and nutrition in management of the diabetic patients with CKD; 4) describe the impact of AKI to accelerate progression of diabetic kidney disease; and 5) discuss risks and approaches to new-onset diabetes after kidney transplant.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Julia Lewis, MD, and Michael Mauer, MD

4:30 p.m.  Not Your Mother’s A1c: Assessment of Glycemia in CKD
Irl B. Hirsch, MD

5:00 p.m.  Just Do It: Physical Activity and Sustenance in Diabetes and CKD
Talat Alp Ikizler, MD, FASN

5:30 p.m.  AKI Turns Up the Heat on Diabetic Kidney Disease
Lakhmir S. Chawla, MD

6:00 p.m.  New-Onset Diabetes after Kidney Transplant
Harini A. Chakkera, MD, FASN
Critical Care Obstetric Nephrology 2015

Room 6B

Pregnant women may develop conditions associated with significant morbidity and sometimes mortality. Nephrologists are often called on to assist in the management of these life-threatening, high-stakes situations. This session discusses thrombotic microangiopathies, eclampsia, postpartum hypertension and stroke, and management of pregnant patients on hemodialysis.

Upon completion of this session, the participant will be able to: 1) describe recent clinical trial data addressing the appropriate treatment of pregnancy-associated hypertension; 2) discuss the pathogenesis and treatment of eclampsia and severe preeclampsia; 3) explain the presentation, assessment, and treatment of severe postpartum hypertension; and 4) manage pregnant patients on hemodialysis.

Core Competency: Professionalism, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Tiina Podymow, MD, and TBD

4:30 p.m.  Antihypertensive Therapy in Pregnant Women: The CHIPS Study
Laura Magee, MD

5:00 p.m.  Eclampsia: What Is It, How to Treat It
Thomas R. Easterling, MD

5:30 p.m.  Postpartum Hypertension Syndromes: It Ain’t Over Until It’s Over
Phyllis August, MD, MPH

6:00 p.m.  Dialysis in Pregnant Women
Michelle A. Hladunewich, MD, FASN
4:30 p.m. – 6:30 p.m. Clinical Practice Session

Exercise: Just Do It

Room 6C

There is overwhelming evidence to support the notion that lack of physical activity (PA) is associated with higher morbidity and mortality in dialysis patients. Yet, concentrated efforts to assess PA during dialysis rounds or to incorporate proven exercise programs specially designed for dialysis patients are lacking. This session provides clinicians with an in-depth review of the effect of PA on the health of these patients. It offers practical and proven methods of incorporating PA assessment and exercise programs into practices.

Upon completion of this session, the participant will be able to: 1) describe the evidence-based literature addressing the beneficial effect of physical activity on dialysis and CKD patients; 2) implement practical tools to assess physical activity in patients during routine rounds; and 3) adopt new methods and incorporate creative exercise programs for dialysis patients.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Bryan R. Kestenbaum, MD, and Carmine Zoccali, MD, FASN

4:30 p.m. Physiology and Benefits of Exercise: Yes Even in Dialysis Patients
Carmine Zoccali, MD, FASN

5:10 p.m. How Can You Incorporate a Full Exercise Program in Your Dialysis Unit?
Kirsten L. Johansen, MD

5:50 p.m. Multidisciplinary Assessment of Physical Activity in the Dialysis Unit: It’s about Time
Patricia Lynn Painter, PhD
Interstitial Nephritis: It Causes Me Hives

Room 5

This session describes new developments in interstitial nephritis, including how to approach patients, identify common causes, and treat patients. This session also reviews data on vancomycin-induced kidney disease.

Upon completion of this session, the participant will be able to: 1) explain how to approach patients with suspected interstitial nephritis; 2) identify common causes of interstitial nephritis; 3) discuss evaluation treatments for interstitial nephritis; and 4) address the question “Does vancomycin cause AKI?”

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:
Glen S. Markowitz, MD, and Manuel Praga, MD

4:30 p.m. Approach to Patients with Suspected Interstitial Nephritis
Mark A. Perazella, MD, FASN

5:00 p.m. Overview of Interstitial Nephritis with a Focus on Treatment
Rajeev Raghavan, MD, FASN

5:30 p.m. Interstitial Nephritis in the Elderly: Any Difference in Cause, Treatment, or Outcome?
Angela K. Muriithi, MBChB, MPH

6:00 p.m. Vancomycin: Does It Really Cause AKI? How Do You Prevent It?
Bhupesh Panwar, MBBS, MD
Renal Biopsy: Clinical Correlations

Room 6A

This session includes transplantation cases, presented in a mini-CPC format with a clinical discussant. Case histories and biopsy images are posted on the ASN website prior to the meeting. Glass slides and case materials can be reviewed and discussed with renal pathology faculty onsite in the Microscope Room prior to this session. Diagnoses are distributed and available on the ASN website after the session.

Upon completion of this session, the participant will be able to: 1) demonstrate the histopathologic findings in peritransplant kidney biopsies; 2) describe the differential diagnosis of the various entities presenting with similar histopathologic findings; and 3) summarize the nephrologist's perspective on the significance of renal biopsy findings.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Erika R. Bracamonte, MD, and Michael Mengel, MD

4:35 p.m. Case 1: A Living Donor with Abnormal Kidney Function—Case History and Differential Diagnosis by Clinical Discussant; Biopsy Findings by Pathology Discussant; Response by Clinical Discussant; Audience Q&A
Mario Schiffer, MD, Clinical Discussant
Ibrahim Batal, MD, Pathology Discussant

4:58 p.m. Case 2: A Liver Transplant Recipient with Proteinuri—Case History and Differential Diagnosis by Clinical Discussant; Biopsy Findings by Pathology Discussant; Response by Clinical Discussant; Audience Q&A
Mario Schiffer, MD, Clinical Discussant
Christine A. Vanbeek, MD, Pathology Discussant

5:21 p.m. Case 3: The Marginal Donor—Case History and Differential Diagnosis by Clinical Discussant; Biopsy Findings by Pathology Discussant; Response by Clinical Discussant; Audience Q&A
Mario Schiffer, MD, Clinical Discussant
Evan A. Farkash, MD, PhD, Pathology Discussant

5:44 p.m. Case 4: The Abnormal Protocol Biopsy in a Stable Allograft—Case History and Differential Diagnosis by Clinical Discussant; Biopsy Findings by Pathology Discussant; Response by Clinical Discussant; Audience Q&A
Mario Schiffer, MD, Clinical Discussant
Ian W. Gibson, MD, Pathology Discussant

6:07 p.m. Case 5: The Presensitized Patient—Case History and Differential Diagnosis by Clinical Discussant; Biopsy Findings by Pathology Discussant; Response by Clinical Discussant; Audience Q&A
Mario Schiffer, MD, Clinical Discussant
S.M. Bagnasco, MD, Pathology Discussant
Systemic Lupus Erythematosus Improvements of Outcomes: Challenges and Controversies

Room 20A/B

The session provides an overview of the current outstanding questions in the clinical management and treatment options of lupus patients, discusses the latest pathologic classification scheme, and critically assesses the limitations. This session also examines the value of repeat biopsy in lupus patients—what it tells you and what it does not—and provides data on nonbiologic determinants of patient outcomes.

Upon completion of this session, the participant will be able to discuss issues involved in managing and treating patients with systemic lupus erythematosus and the physician’s role in improving patient outcomes.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
David R.W. Jayne, MD, and Christopher Patrick Larsen, MD

4:30 p.m.  Overview
Gerald B. Appel, MD, FASN

5:00 p.m.  Histological Classification: Helpful?
Ian Roberts, MBChB

5:30 p.m.  Utility of the Repeat Biopsy
Brad H. Rovin, MD, FASN

6:00 p.m.  Biologic versus Nonbiologic Determinants of Outcomes
Keisha L. Gibson, MD
Upon completion of the oral abstract sessions, the participant will be able to: 1) construct new research questions based on updated scientific and clinical advances in nephrology-related disciplines; and 2) translate recent advances into new standards and approaches to clinical care of patients with kidney diseases and related disorders.

Core Competency: Medical Knowledge

4:30 p.m. – 6:30 p.m. Oral Abstract Sessions

4:30 p.m. – 6:30 p.m. Oral Abstract Session

**CKD: Revisiting Risk Factors for Incidence and Progression**

*Room 9*

**Moderators:** Adeera Levin, MD, and Aylin Rodan, MD, PhD, FASN

4:30 p.m. FMO3 Allelic Variant 158K Affects Trimethylamine Metabolism, Disease Progression, and All-Cause Mortality in Patients with CKD — Catherine K. Young, Cassianne Robinson-Cohen, Richard Newitt, Danny D. Shen, Allan E. Rettie, Bryan R. Kestenbaum, Jonathan Himmelfarb. Seattle, WA.

4:42 p.m. Association Between Mitochondria DNA Copy Number and Incident Chronic Kidney Disease: The Atherosclerosis Risk in Communities (ARIC) Study — Adhene T. Morgan Grans, A. Rosenberg, Foram N. Ashar, Josef Coresh, Dan Arking. Baltimore, MD.

4:54 p.m. Urinary EGF Predicts Composite Endpoints in Three Independent Chronic Kidney Disease Cohorts — Vij Nair, Li Zhu, Peter X.K. Song, Laura H. Mariani, Susan P. Steigerwalt, Jicheng Lv, Jennifer Joyce Hawkins, Hong Zhang, Matthias Kretzler, Wenjun Ju. Ann Arbor, MI.

5:06 p.m. Normalization of Biomarkers to Urine Creatinine: Impact on CRIC Study Findings — Kathleen D. Liu, Dawei Xie, Sushrut S. Waikar, Xiaoming Zhang, Venkata Sabbisetti, Klaus M. Lora, Jeffrey R. Schelling, Mahboob Rahman, Kunihiro Matsushita, Peter L. Kimmel, Jonathan Himmelfarb, Josef Coresh. Ann Arbor, MI.

5:18 p.m. Proton Pump Inhibitor Use is Associated with Incident Chronic Kidney Disease — Benjamin Lazarus, Yuan Chen, Francis Perry Wilson, Josef Coresh, Morgan Grans. Brisbane, Queensland, Australia.

5:30 p.m. Underuse of Renin Angiotensin System Inhibitors and Other Medications in U.S. Patients with Advanced Chronic Kidney Disease Receiving Nephrologist Care: Results from the International CKDopps — Elodie Speyer, Laura H. Mariani, Charlotte Tu, Lindsay Zepel, Celine Lange, Brian Bieber, Christian Combe, Antonio Alberto Lopes, Ziad Massy, Roberto Pecoits-Filho, Ronald L. Pisoni, Helmut Reichel, Benedicte Stengel, Paul L. Kimmel, Harold I. Feldman, Josef Coresh. Ann Arbor, MI.

5:42 p.m. Albuminuria Changes and Subsequent Risk of End-Stage Renal Disease and Mortality — Juan Jesus Carrero, Yingying Sang, Alessandro Gasparini, Abdul Rashid Tony Qureshi, Kunihiro Matsuhashi, Johan Amlow, Marie Evans, Peter F. Barany, Bengt Lindholm, Morgan Grans, Shoshana Ballew, Carl Gustaf Elinder, Josef Coresh. Stockholm, Sweden.

5:54 p.m. Prevalence of Chronic Kidney Disease, Diabetes and Hypertension in Rural Tanzania Based of Different Methodologies — David W. Ploth, Virginia Fonner, Bruce Horowitz, Philip Zager, Csaba P. Kovesdy, Caroline M. West, Michael D. Sweat. Charleston, SC.


Clinical Glomerular and Tubulointerstitial: Treatments and Outcomes of Nephrotic Diseases

Room 25

Moderators:
Jean M. Francis, MD, and J. Ashley Jefferson, MD


4:42 p.m. Two-Year Outcomes of Patients with Idiopathic Membranous Nephropathy, Previously Randomized to Either Modified Ponticelli Regimen or to a Combination of Tacrolimus and Steroids — Krishan L. Gupta, Raja Ramachandran, Harbir Singh Kohl, Vivekanand Jha. Chandigarh, India.


5:18 p.m. An Indirect Immunofluorescence Test (IFT) to Measure Thrombospondin Type-1 Domain-Containing 7A Antibodies (THSD7A-Ab) in Patients with Membranous Nephropathy (MN) — Elion Hoxha, Laurence H. Beck, Nicola M. Tomas, Christian Probst, David J. Salant, Rolf A. Stahl. Hamburg, Germany.

5:30 p.m. Melanocortin 1 Receptor (MC1R) Is Dispensable for the Proteinuria Reducing and Glomerular Protective Effect of Melanocortin Therapy — Yingjin Qiao, Anna-lena Berg, Yan Ge, Zhangsuo Liu, Rujun Liu, Zhangsuo Liu. Providence, RI.


5:54 p.m. Amelioration of the Adverse Effects of Prednisolone by Rituximab Treatment in Adults — Yoshimi Miyabe, Takashi Takei, Yoko Iwabuchi, Takahito Moriyama, Kosaku Nitta. Tokyo, Japan.

6:06 p.m. Determining eGFR Trajectory Clusters in the NEPhrtoic Syndrome STUdy Network (NEPTUNE) — Laura H. Mariani, Jarcy Zee, Tony Wang, Vij Nair, Wenjun Ju, Jonathan P. Troost, Debbie S. Gipson, Peter X.K. Song, Brenda W. Gillespie. Ann Arbor, MI.

Clinical Pediatric Nephrology Research

Room 7

Moderators:
Katherine M. Dell, MD, and Bethany J. Foster, MD

4:30 p.m. Living Donation Has a Greater Impact on Allograft Survival Than HLA Matching in Paediatric Renal Transplant Recipients — Matko Marlais, Alex J. Hudson, Laura Anne Pankhurst, Susan V. Fuggle, Stephen D. Marks. London, United Kingdom.

4:42 p.m. UK National Registry Study of Kidney Donation After Circulatory Death for Paediatric Recipients — Matko Marlais, Laura Anne Pankhurst, Alex J. Hudson, Khalid Sharif, Stephen D. Marks. London, United Kingdom.

4:54 p.m. Longitudinal Change in Neurocognitive Functioning in Pediatric Chronic Kidney Disease — Stephen R. Hooper, Matthew Matheson, Rebecca J. Johnson, Arlene C. Gerson, Marc Lande, Susan R. Mendley, S. Shinnar, Debbie S. Gipson, Susan L. Furth, Bradley Warady. Chapel Hill, NC.


5:18 p.m. Phospholipase A2 Receptor Autoantibodies in Pediatric Membranous Nephropathy — Rebecca Kirkwood-Wlison, Maryline Fresquet, Nicholas J. Webb, Paul E. Brenchley, Rachel Lennon. Manchester, United Kingdom.

5:30 p.m. APOL1-Associated Glomerular Disease in African-American Children in the CKiD and NEPTUNE Cohorts — Derek Ng, C. Robertson, C. Gillies, Sophie Limou, Robert Woroniecki, Kimberly J. Reidy, Sangeeta R. Hingorani, Keisha L. Gibson, Christine B. Sethna, Cheryl Ann Winkler, Jeffrey B. Kopp, Susan L. Furth, Bradley Warady, John R. Sedor, Frederick J. Kaskel, M. Sampson. Baltimore, MD.


5:54 p.m. Invited Lecture: Copy Number Variants and Screening for Congenital Anomalies of the Urinary Tract — TBD
Dialysis: Understanding and Decreasing Risk of Cardiovascular Disease

Room 24

Moderators:
Steven M. Brunelli, MD, and Tara I. Chang, MD, FASN

4:30 p.m. – 6:30 p.m. Oral Abstract Session


4:42 p.m. Levocarnitine Improves Cardiac Function in Hemodialysis Patients with Left Ventricular Hypertrophy — Masanori Abe, Noriaki Maruyama, Tetsuya Furukawa, Kazuyoshi Okada. Tokyo, Japan.


5:06 p.m. Isonatric Dialysis Biofeedback in Hemodiafiltration with Online Regeneration of Ultrafiltrate in Hypertensive Hemodialysis Patients: A Randomized Controlled Study — Lucile Mercadal, Frederic Debelle, Christine Fumeron, Lise Mandart, Isabelle Simon, Yabsou Delmas, Sophie Tezenas du montcel. Paris, France.


5:30 p.m. Combined Target Ranges for Blood Pressure and Fluid Overload — Ulrich Moissl. Bad Homburg, Germany.

5:42 p.m. Volume Status Assessed by Bioimpedance in Hemodialysis Predicts Mortality — Janice P. Lea, Laura Plantinga, Rebecca H. Zhang, Nancy G. Kutner. Atlanta, GA.

5:54 p.m. Abnormal Global Longitudinal Strain Is Associated with All-Cause Mortality in Hemodialysis Patients — Diana Chiu, Darren Green, Nik Abidin, Philip A. Kaira. Manchester, United Kingdom.


4:30 p.m. – 6:30 p.m.  Oral Abstract Session

Gaining Insight: In Vitro/In Silico Models and Magnetic Resonance Imaging

Room 10

Moderators: Karlhans Endlich, MD, and Andrea Remuzzi, EngD

4:30 p.m.  Glomerulus on-a-Chip as a Model to Study the Glomerular Filtration Barrier In Vitro — SA-OR038  Stefano Da Sacco, Jos Joore, Paul Vulto, Roger E. De Filippo, Laura Perin. Los Angeles, CA.

4:42 p.m.  Pharmacokinetic Model for Screening Nephrotoxicity Using Kidney on a Chip — SA-OR039  Sejong Kim, Sasha Cai Lesher-Perez, Byoung Choul C. Kim, Cameron Yamanishi, Joseph M. Labuz, Shuichi Takayama. Seongnam, Gyeonggi-do, South Korea.


5:06 p.m.  Mechanical Properties of Renal Tubules Measured Using Glass Microcantilevers — SA-OR041  Nicholas J. Ferrell. Nashville, TN.

5:18 p.m.  Non-Invasive Measurement of Renal Blood Flow (RBF) in Rat by Magnetic Resonance Images (MRI) — SA-OR042  Cesar A. Romero, Robert Knight, Oscar A. Carretero. Troy, MI.


5:54 p.m.  Invited Lecture: 3-D Printing for Medical Research — Kimberly Homan, PhD
4:30 p.m. – 6:30 p.m. Oral Abstract Session

Glomerular Cell Biology: From Imaging and Pathogenesis to Therapy

Room 1

Moderators: Mira Krendel, PhD, and Rachel Lennon, MD, PhD

4:30 p.m. Super-Resolution Microscopy Reveals the Formation of a Mat of Contractile Fibers as Part of the Podocyte Foot Process Effacement Phenomenon — Hani Suleiman, Jeffrey H. Miner, Andrey S. Shaw. St. Louis, MO.

4:42 p.m. Intravital and Organ Slice Imaging of Podocyte Membrane Dynamics — Sebastian Braehler, Haiyang Yu, Gokul Murali Krishnan, Hani Suleiman, Jeffrey H. Miner, Bernd H. Zinselmeyer, Andrey S. Shaw. St. Louis, MO.

4:54 p.m. Intravital Multiphoton Imaging of Podocyte Ca2+ Confirming the Important Role and Mechanism of TRPC6 in Glomerular Pathology — Kengo Kidokoro, Anne Riquier-brison, Janos Peti-Peterdi. Los Angeles, CA.

5:06 p.m. Mesangial Filopodial Invasion of Glomerular Capillaries in Alport Syndrome — Dominic E. Cosgrove, Daniel T. Meehan, Brianna M. Dufek, Duane C. Delimont. Omaha, NE.

5:18 p.m. The DREADD Concept: A Novel In Vivo Tool for Kidney Research Questioning the Role of Ca2+ on Actin Dynamics in Podocytes — Sybille Köhler, Sebastian Braehler, Julia Binz, Matthias Hackl, Frank Schweda, Thomas Benzing, Bernhard Schermer, Paul T. Brinkkoetter. Cologne, Germany.

5:30 p.m. Loss of Epithelial Membrane Protein 2 Aggravates Podocyte Injury via Upregulation of Caveolin-1 — Weibin Zhou, Xiaoyang Wan, Zhao-hong Chen, Won-Il Choi, Heon Yung Gee, Friedhelm Hildebrandt. Ann Arbor, MI.

5:42 p.m. GLEPP1 Deficiency Defines a Novel Glomerular Disease — Eva Koenigshausen, Christian Weigel, Philip Schüppler, Laura Lennartz, Thorsten Wiech, Catherine Meyer-Schewinger, Roger C. Wiggins, Sophie C. Collinson, Rachel Lennon, Magdalena Woznowski, Ivo Quack, Lars C. Rump, Lorenz Sellin. Duesseldorf, Germany.

5:54 p.m. The Role of Podocyte Associated Angiotensin II Type 1a Receptor in Nephrosis — Kazunori Inoue, Xuefei Tian, Shuta Ishibe. New Haven, CT.

6:06 p.m. The Spectrum of Nephrotic Syndrome from Minimal Change Disease to FSGS Correlates with Rac1 Activation — Richard Robins, Cindy Baldwin, Lamine Aoudjit, Indra R. Gupta, Tomoko Takeo. Montreal, QC, Canada.

4:30 p.m. – 6:30 p.m. Oral Abstract Session

Improving Outcomes in Transplant Recipients

Room 2

Moderators: Enver Akalin, MD, and Ajay K. Israni, MD


4:42 p.m. Long-Term Deceased Donor Kidney Graft Survival Has Improved in the Last Decade — Douglas Scott Keith, Gayle M. Vranic, Angie G. Nishio-Lucar. Charlottesville, VA.

4:54 p.m. Characteristics Associated with Greater Than 5 Year Kidney Graft Survival Among HIV+ Recipients — Laura Panarey, Alden Michael Doyle, Karthik M. Ranganna. Philadelphia, PA.

5:06 p.m. Identifying the Two Specific Types of Antibody-Mediated Rejection and Their Outcomes in Kidney Recipients — Olivier Aubert, Alexandre Loupy, Luis G. Hidalgo, Jeff Reeve, Denis Glotz, Christophe M. Legendre, Carmen Lefaucheur, Philip F. Halloran. Paris, France.


5:30 p.m. Longitudinal Assessment of Cardiac Morphology and Function following Kidney Transplantation — Clark David Kensinger, Antonio Hernandez, Meagan Fairchild, Guanhua Chen, Loren Lipworth, Talat Alp Ikizler, Kelly A. Birdwell. Nashville, TN.


6:06 p.m. Month 48 Follow-Up Results of the HERAKLES Study: Superior Renal Function After Early Conversion to an Everolimus-Based Calcineurin Inhibitor Free Regimen — Klemens Budde, Oliver Witzke, Thomas Rath, Peter Weitchofer, Johannes Jacobi, Bruno Vogt, Ingeborg A. Hauser, Rolf A. Stahl, Petra Reinke, Martina Porstner, Martin G. Zeier, Frank Lehner, Wolfgang Arns, Claudia Sommerer. Berlin, Germany.

Mechanisms of Hypertension Development

Room 8

Moderators:
Luis A. Juncos, MD, FASN, and Roberto Zatz, MD, PhD

4:30 p.m. Differential Expression of MicroRNA in Urinary Exosomes of Preeclampsia Patients —
SA-OR065 Belinda Bun Jim, Alison P. Sanders, Daniel Flores, Rajeev Rohatgi. New Hyde Park, NY.


4:54 p.m. Nephron Specific Deletion of the Prorenin Receptor Modulates Blood Pressure and Urinary Na Excretion — Nirupama Ramkumar, Deborah Stuart, Elena V. Mironova, Vladislav V. Bugay, Mykola Mamenko, Shuping No Wang, Oleh Pochynyuk, James D. Stockand, Donald E. Kohan. Salt Lake City, UT.

5:06 p.m. Pendrin Localizes to the Adrenal Medulla and Modulates Catecholamine Release — Annie Y. Park, Truyen D Pham, William H. Beierwaltes, Roy L. Sutliff, Jill W. Verlander, Carla L. Ellis, Brandi M. Wynne, Robert S. Hoover, Susan M. Wall, Yoskaly Lazo-Fernandez. Atlanta, GA.


5:30 p.m. Vascular AT1 Angiotensin Receptors Regulate Sodium Transporter Abundance in Kidney Epithelium — Matthew A. Sparks, Susan B. Gurley, Alicia A. McDonough, Thomas M. Coffman. Durham, NC.


5:54 p.m. Invited Lecture: Novel Mendelian Form of Extrarenal Hypertension — Friedrich C. Luft, MD, FASN
4:30 p.m. – 6:30 p.m.  Oral Abstract Session

Molecular and Clinical Insights into the Pathogenesis of Nephrolithiasis
Room 6E
Moderators: Kristin J. Bergsland, PhD, and Andrew D. Rule, MD


4:42 p.m.  Oxaibacter-Derived Bioactive Factors Reduce Urinary Oxalate Excretion in a Mouse Model of Primary Hyperoxaluria — Hatim A. Hassan, Donna L. Arvans, Yong-chul Jung, Dionysios A. Antonopoulos, John R. Asplin, Ignacio Granja, Jason C. Koval, Mark W. Musch, Eugene B. Chang. Chicago, IL.


5:06 p.m.  Critical Role of Toll-Like Receptor 4 in Crystal-Induced Inflammation and Renal Failure — Venkata Surya Narayana Murty Darisipudi, Christoph Daniel, John R. Asplin, Ignacio Granja, Kerstin U. Amann, Kai-Uwe Eckardt, Peter S. Aronson, Felix Knauf. Erlangen, Germany.

5:18 p.m.  ALLN-177 Oral Enzyme Therapy Reduces Urinary Oxalate in Patients with Secondary Hyperoxaluria (2° HO) and Recurrent Kidney Stones: Results of a Phase 2 Study — Gyan Pareek, James E. Lingeman, Zeph Okeke, Linda H. Easter, Danica Grujic, Craig B. Langman, Jennifer Nezzer, Lee Brettman. Providence, RI.


5:54 p.m.  Invited Lecture: Whither the Randomized Controlled Trial in Nephrolithiasis? — David S. Goldfarb, MD, FASN
4:30 p.m. – 6:30 p.m. Oral Abstract Session

Molecular Mechanisms of Renal Fibrosis

Room 6F
Moderators: Leslie S. Gewin, MD, and R. Tyler Miller, MD

4:30 p.m. Anti-MicroRNA-21 Oligonucleotides Prevent Renal Fibrosis Progression by Blocking the Auto-Regulatory Loop of miR-21/PDCD4/AP-1 During Myofibroblasts Activation — Qi Sun, Junwei Yang. Nanjing, China.


4:54 p.m. Characterizing the Molecular Identity of Pathogenic Fibroblasts Using Single Cell RNAseq — Yonggen Chang, Kai-Hui Sun, Ian Driver, Andrew J. King, Meagan Fricano, Jason Rock, Nilgun Reed, Dean Sheppard. Laguna Niguel, CA.

5:06 p.m. Persistent Activation of Autophagy in Kidney Tubular Cells Promotes Renal Interstitial Fibrosis During Unilateral Ureteral Obstruction — Man J. Livingston, Zheng Dong. Augusta, GA.

5:18 p.m. Macrophage Migration Inhibitory Factor Promotes Kidney Fibrosis in ADPKD — Xia Zhou, Li Chen, Dorien J.M. Peters, Mihaela Gadjeva, Xiaogang Li. Kansas City, KS.

5:30 p.m. HGF/c-met Signaling in Macrophages Attenuates Kidney Fibrosis by Regulating Matrix Remodeling and Turnover — Haiyan Fu, Dong Zhou, Liangxiang Xiao, Roderick J. Tan, Youhua Liu. Pittsburgh, PA.

5:42 p.m. The Hippo-Salvador Signaling Pathway Regulates Renal Tubulointerstitial Fibrosis — Yong Kyun Kim, Sun-ah Nam, Wan-Young Kim, Arum Choi, Yumi Kim, Jin Kim. Bucheon-si, Geoynggi-do, South Korea.


6:06 p.m. Roles of CCN2 and Caspase Activities in Tubular Epithelial Cells Involved in AKI Transition to CKD — Takeru Kusano, Tsutomu Inoue, Hirokazu Okada. Iruma-gun, Saitama, Japan.

6:18 p.m. Repeated Minor AKI Accelerates Renal Fibrosis and Dysfunction in Klotho Deficit Mice — Ken Tsuchiya, Hidekazu Sugiiura, Miki Nishida, Kenichi Akiyama, Kosaku Nitta. Shinjuku-ku, Japan.
4:30 p.m. – 6:30 p.m.  Oral Abstract Session

**Nutrition, Inflammation, and Metabolism**

**Room 26**

**Moderators:**
Russ Price, PhD, and Peter Stenvinkel, MD, PhD

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4:42 p.m.  **A Novel Deleterious Role for Dietary Salt-Sugar Interplay in Metabolic Syndrome and Elevated Blood Pressure in Mice** — Miguel A. Lanaspa, Christina Cicerchi, Ana Andres-hernando, Carlos Alberto Roncal-jimenez, Takuji Ishimoto, Richard J. Johnson. Aurora, CO.

4:54 p.m.  **Sodium Chloride Promotes Tissue Inflammation via Osmotic Stimuli in Subtotal Nephrectomized Mice** — Fumiko Sakata, Yasuhiko Ito, Masashi Mizuno, Yasuhiro Suzuki, Takeshi Terabayashi, Takako Tomita, Mitsuhiro Tawada, Shoichi Maruyama, Enyu Imai, Yoshitumi Takei, Seichiro Matsuo. Nagoya, Japan.

5:06 p.m.  **The Relationship of Chronic Kidney Disease Severity with Urine Sodium Excretion** — Cheryl A. Anderson, Amanda K. Leonberg-Yoo, Joachim H. Ix, Mark J. Samak, Lawrence J. Appel. La Jolla, CA.

5:18 p.m.  **Lower Risk of ESRD Associated with DASH Diet in Adults with Moderate CKD and Hypertension** — Tanushree Banerjee, Deidra C. Crews, Meda E. Pavkov, Nilka Rios Burrows, Jennifer L. Bragg-Gresham, Rajiv R. Powe. San Francisco, CA.

5:30 p.m.  **Normal Weight with Central Obesity Is Associated with the Highest Risk of Coronary Artery Calcification in Chronic Kidney Disease Patients** — Mi Jung Lee, Shin-Wook Kang, Curie Ahn, Tae-Hyun Yoo. Seodaemun-gu, Seoul, South Korea.

5:42 p.m.  **MicroRNA-27a Is Decreased in Skeletal Muscle During Atrophy and Is Regulated by Calcineurin/NFAT Signaling: A Regulatory Mechanism for Myostatin Expression** — Xiaonan H. Wang, Russ Price, Jill A. Rahnert, Matthew B. Hudson. Atlanta, GA.

5:54 p.m.  **Systemic Inflammation Affects Skeletal Muscle Protein Homeostasis in Maintenance Hemodialysis (MHD) Patients** — Serpil Muge Deger, Adriana Hung, Edward D. Siew, Cindy Booker, Talat Alp Ikizler. Nashville, TN.

6:06 p.m.  **IL-1 Blockade Improves Adiponectin (ADPN) Levels in Patients with CKD Stages 3 and 4** — Adriana Hung, Kristen L. Nowak, Talat Alp Ikizler, Natjaile Salas, Heather Farmer, Rafia I. Chaudhry, Michel Chonchol. Nashville, TN.

6:18 p.m.  **Effects of Chronic Intradialytic Resistance Physical Exercises in Nrf2 and NF-kB** — **Denise Mafra**, Cinthia Da Costa Abreu, Milena Barca Stockler-Pinto, Ludmila F.M.F. Cardozo. Rio de Janeiro, Brazil.
Patient-Oriented Research in AKI

Room 6D

Moderators:
Stuart Goldstein, MD, and Patrick T. Murray, MD, FASN

4:30 p.m. – 6:30 p.m. Oral Abstract Session

4:30 p.m. Evaluation of Novel Urine Biomarkers for Diagnosis of Subclinical Acute Tubular Necrosis — Dennis G. Moledina, Isaac E. Hall, Mona D. Doshi, Peter P. Reese, Francis L. Weng, Bernd Schroppel, Heather Thiesen Philbrook, Joseph Ficcek, Chirag R. Parikh. New Haven, CT.

4:42 p.m. The Epidemiology and Outcome of Worldwide Acute Kidney Injury in Critically Ill Children: A Prospective Multinational Study — Ahmad Kaddourah, Rajit K. Basu, Stuart Goldstein. Doha, Qatar.


5:06 p.m. Long-Term Outcomes After Rhabdomyolysis — Ian J. Stewart, Tarra Ischele Faulk, Jonathan Sosnov, Kevin Chung. Lodi, CA.

5:18 p.m. Podocyte Injury Is a Potential Contributor to Kidney Damage and Its Irreversibility During Acute Decompensated Heart Failure with Cardiorenal Syndrome — Parta Hatamizadeh, Todd Koelling, Mahboob A. Chowdhury, Su Qing Wang, Judith Grossi, Roger C. Wiggins. Ann Arbor, MI.

5:30 p.m. Micronutrient Loss in Renal Replacement Therapy for Acute Kidney Injury — Weng Oh, David S. Gardner, Mark A.J. Devonald. Nottingham, United Kingdom.


5:54 p.m. Outcomes of In-Hospital Cardiopulmonary Resuscitation (CPR) in Patients with Acute Kidney Injury — Fahad Saeed, Jean L. Holley, Sevag Demirjian. Solon, OH.


4:30 p.m. – 6:30 p.m.  Oral Abstract Session

Water, Urea, and Vasopressin

Room 23

Moderators: Robert A. Fenton, PhD, FASN, and Søren Nielsen, MD, PhD

4:30 p.m.  Discovery and Testing in Rat Models of UT-A1 Urea Transporter Inhibitors —

4:42 p.m.  Pathways for Urea Transport Across the Rat Inner Medullary Thin Limbs of Henle’s Loops —

4:54 p.m.  Comparative Analysis of Vasopressin V1a and V2 Receptors Distribution in the Mammalian Kidney —
SA-OR111  Torsten Giesecke, Taka-aki Koshimizu, Katsumasa Kawahara, Sebastian Bachmann, Kerim Mutig. Berlin, Germany.

5:06 p.m.  Role of Nedd4-2 Underlying V2R Activation of ENaC —

5:18 p.m.  Vasopressin Lowers Renal Epoxyeicosatrienoic Acid Levels by Activating Soluble Epoxide Hydrolase —
SA-OR113  Alexander Paliege, Allein Plain, Markus Bleich, Sebastian Bachmann, Nina Himmerkus. Berlin, Germany.

5:30 p.m.  MicroRNA-132 Regulates Diuresis by Mediating Vasopressin Production —
SA-OR114  Roel Bijkerk, Ruben de Bruin, Coen van Solingen, Ton J. Rabelink, Benjamin D. Humphreys, Peter M.T. Deen, Anton Jan Van Zonneveld. Leiden, South (Zuid) Holland, Netherlands.

5:42 p.m.  Dephosphorylation at Ser-261 Is a Determinant for the Regulated AQP2 Apical Accumulation —

5:54 p.m.  ILK Is Important for Recycling of AQP2 and Its Subsequent Entry into the Exocytotic Pathway —
SA-OR116  Fahmy Mamuya, Jose Luis Cano-Peñalver, Dennis Brown, Hua Ann Jenny Lu. Medford, MA.

6:06 p.m.  GI Regulation of Vesicle Osmotic Swelling Is Required for Nonsecretory Vesicle Fusion: Aquaporin 2 Water Channel as a Paradigm —
SA-OR117  Giovanna Valenti, Maria De Santo, Mariangela Centrone, Maria Grazia Mola, Marianna Ranieri, Vincenzo Formoso, Grazia Tamma. Bari, Italy.

6:18 p.m.  An Enzyme Immunoassay for Urinary Extracellular Vesicles —
### Plenary Session

8:00 a.m. – 9:30 a.m.

- **Page 174**  
  In Memoriam, Innovations in Kidney Education Contest Winners, ASN/AHA Young Investigator Award Presentation and Address, State-of-the-Art Lecture  
  *Hall D*

### Special Session

9:30 a.m. - 10:00 a.m.

- **Page 174**  
  ASN Business Meeting  
  *Hall D*

### Basic and Clinical Science Sessions

10:00 a.m. – 12:00 p.m.

- **Page 175**  
  Bone–Heart–Vessels–Kidney Cross-Talk  
  *Room 6F*
- **Page 176**  
  Dead but Not Gone: Cell Death at the Beginning of Health and Disease  
  *Room 9*
- **Page 177**  
  Nephron Endowment from Development to Disease  
  *Room 2*
- **Page 178**  
  Not Just Another Cell in the Glomerulus: The Emergence of the Parietal Cell  
  *Room 6E*
- **Page 179**  
  Preeclampsia: Emerging Diagnostic Tools and Therapies  
  *Room 8*
- **Page 180**  
  Water, Water Everywhere: Finding Effective Treatments for Diabetes Insipidus, Including the Barry M. Brenner, MD, Endowed Lectureship  
  *Room 6D*

### Clinical Practice Sessions

10:00 a.m. – 12:00 p.m.

- **Page 181**  
  Are We Confusing Normal Aging and CKD?  
  *Room 10*
- **Page 182**  
  Dialysis in the Emerging World: From Epidemiology to Economics  
  *Room 6C*
- **Page 183**  
  Finding the Sweet Spot: New Tools and Perspectives on Diabetes Management in CKD  
  *Room 7*
- **Page 184**  
  Nonrenal Complications of AKI  
  *Room 5*
- **Page 185**  
  Thrombotic Microangiopathy in the Transplant  
  *Room 1*
8:00 a.m. – 9:30 a.m.  

**Plenary Session**

In Memoriam, Innovations in Kidney Education Contest Winners,  
ASN/AHA Young Investigator Award Presentation and Address,  
State-of-the-Art Lecture

_Hall D_

Supported by an independent educational grant from Akebia Therapeutics, Inc.

Upon completion of this session, the participant will be able to describe human organs on chips.

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8:00 a.m.  In Memoriam  
8:05 a.m.  Innovations in Kidney Education Contest Winners  
8:15 a.m.  ASN/AHA Young Investigator Award Presentation and Address “Renal Physiology Is Key to Understand and Augment Nephron Repair”  
_Janos Peti-Peterdi, MD, PhD_  
8:50 a.m.  State-of-the-Art Lecture “Human Organs on Chips”  
_Donald E. Ingber, MD, PhD_  
8:45 a.m.  State-of-the-Art Lecture “Insulin Resistance: What Is Driving the Diabetes Epidemic?”  
_Gerald I. Shulman, MD, PhD_  

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9:30 a.m. – 10:00 a.m.  

**Special Session**

ASN Business Meeting

_Hall D_
Recent reports of several bone-derived substances, some of which have hormonal properties, have shed new light on the bone–cardiovascular axis. Deranged concentrations of humoral factors are not only epidemiologically connected to cardiovascular morbidity and mortality but can also be causally implicated, especially in CKD. The session provides an update on several new findings in this emerging field of organ cross-talk.

Upon completion of this session, the participant will be able to: 1) describe new insights into the pathogenesis of CKD-MBD; 2) treat the bone to save the heart; 3) discuss updates on vascular calcification; 4) explain the role of inflammation on regulation of fibroblast growth factor (FGF) 23; and 5) describe the contribution of bone to overall metabolism.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Ian H. De Boer, MD, and Francesca Mallamaci

10:00 a.m. Bone and Kidney Cross-Talk: Influence of Bone and Mineral Metabolism on CKD Progression
Marc G. Vervloet, MD, PhD

10:30 a.m. Bone and Vasculature Cross-Talk: Influence of Bone and Mineral Metabolism on Vasculature
Gerard M. London, MD

11:00 a.m. Bone and Energy Balance: Relevance for CKD
Thomas L. Clemens, PhD

11:30 a.m. Bone and Systemic Inflammation: Impact on FGF23 Regulation
Valentin David, PhD
Dead but Not Gone: Cell Death at the Beginning of Health and Disease

Room 9

This session explores the role of cell death in inflammation and immune activation in the context of AKI, autoimmunity, and transplantation. Mechanisms underlying recognition of dying cells resulting in inflammation and activation of immune cells are discussed.

Upon completion of this session, the participant will be able to: 1) describe different forms of cell death in health and disease; 2) explain how response to cell death triggers inflammation and immune activation; and 3) explain how cell death is central to the pathogenesis of AKI, autoimmunity, and transplant rejection.

Core Competency: Medical Knowledge

Moderators:
Jonathan S. Maltzman, MD, PhD, and Natasha M. Rogers, MD, PhD

10:00 a.m. Apoptotic Cell Clearance in Health and Disease
Kodi S. Ravichandran, PhD

10:30 a.m. Scavenger Receptors, Gender, and Autoimmunity
Terry K. Means, PhD

11:00 a.m. Necroptosis and Inflammation in AKI
Andreas Linkermann, MD, FASN

11:30 a.m. Necroptosis in Transplantation: Implications for Graft Survival
Anthony M. Jevnikar, MD
10:00 a.m. – 12:00 p.m. Basic and Clinical Science Session

Nephron Endowment from Development to Disease

Room 2

Understanding the impact of interindividual variations in nephron endowment on adult renal and cardiovascular disease in humans has been limited by our inability to measure nephron numbers in the living patients and our limited understanding of the mechanisms governing nephron numbers during embryonic and postnatal kidney development. This session discusses what is known about the impact of nephron endowment in human disease, insights into the cellular mechanisms and pathways regulating nephron numbers, and new approaches being developed to quantify nephron endowment in live animals.

Upon completion of this session, the participant will be able to: 1) explain the impact of nephron endowment on human health and disease and the clinical variables associated with reduced nephron numbers in humans; 2) describe patterns of renal growth and cellular signals regulating nephron number and kidney size during embryonic development; and 3) discuss new approaches to estimate nephron endowment in live animals.

Core Competency: Medical Knowledge

Moderators:

Thomas J. Carroll, PhD, and Norman D. Rosenblum, MD

10:00 a.m. Kidney Growth during Mouse Embryonic Development
Melissa H. Little, PhD

10:30 a.m. Fetal Determinants of Kidney Growth and Function in Humans
Hanneke Bakker

11:00 a.m. Nephron Endowment and Human Disease
Michiel F. Schreuder, MD, PhD

11:30 a.m. Emerging Technologies for Glomerular Counting in the Living
Kevin M. Bennett, PhD
10:00 a.m. – 12:00 p.m. Basic and Clinical Science Session

Not Just Another Cell in the Glomerulus: The Emergence of the Parietal Cell

Room 6E

This session focuses on the glomerular parietal cell as recent evidence suggests that these cells play an important role during recovery of kidney injury and potentially serve as renal progenitor cells. This session covers the origin of parietal cells using in vitro and in vivo labeling techniques, dissects its importance in the repair process following glomerular injury, and elucidates the signaling pathways elicited following glomerular injury.

Upon completion of this session, the participant will be able to: 1) describe model systems to study parietal cells; 2) explain the importance of parietal cells in the maintenance of the filtration barrier; 3) describe the role of parietal cells following glomerular injury; and 4) identify signaling pathways elicited by the parietal cell.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Systems-based Practice

Moderators:
Helen Liapis, MD, and Astrid Weins, MD, PhD

10:00 a.m. Lineage Mapping of Parietal Cells
Marcus J. Moeller, MD

10:30 a.m. Role of Parietal Cells following Glomerular Injury
Stuart J. Shankland, MD, FASN

11:00 a.m. Modulatory Effects on Parietal Cells in Glomerular Injury
Paola Romagnani, MD

11:30 a.m. Notch Signaling in Parietal Cells
Michio Nagata, MD, PhD
Preeclampsia: Emerging Diagnostic Tools and Therapies

Room 8

This session addresses the impact of discovery of molecular pathways mediating preeclampsia phenotypes. Data on urine and plasma biomarkers for use in diagnosis and prognosis of preeclampsia are presented. Furthermore, novel and unconventional therapeutic approaches such as siRNA and targeted apheresis are discussed.

Upon completion of this session, the participant will be able to: 1) review molecular pathways mediating preeclampsia; 2) describe the clinical utility of serum- and urine-based biomarkers in preeclampsia; and 3) discuss new therapeutic approaches for preventing and treating preeclampsia.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:
Michelle A. Hladunewich, MD, FASN, and Belinda Bun Jim, MD

10:00 a.m. Podocyturia and Urinary Markers in Preeclampsia
Vesna D. Garovic, MD

10:30 a.m. Angiogenic Biomarkers in Preeclampsia: Are They Ready for Primetime?
Holger Stepan, MD

11:00 a.m. Angiotensin II Signaling in Adverse Pregnancy Complications
Ralf Dechend, MD

11:30 a.m. Early Experience with Targeted Apheresis in Preeclampsia
Ravi I. Thadhani, MD, MPH
10:00 a.m. – 12:00 p.m.  Basic and Clinical Science Session

Water, Water Everywhere: Finding Effective Treatments for Diabetes Insipidus, Including the Barry M. Brenner, MD, Endowed Lectureship

Room 6D

ASN gratefully acknowledges Monarch Pharmaceuticals for support of the Barry M. Brenner, MD, Endowed Lectureship.

This session examines the targeting of ion transporters in hyponatremia and diabetes insipidus. Targeting aquaporins (AQP$s$) and urea transporters are examined, as well as the mechanism of thiazide treatment of nephrotic diabetes insipidus (NDI).

Upon completion of this session, the participant will be able to: 1) describe AQP2 as a target for treating NDI; 2) explain urea transporters as targets for treating NDI; 3) discuss the mechanism of lithium treatment of NDI; and 4) provide an overview of NDI.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:
Mitsi A. Blount, PhD, and Robert A. Fenton, PhD, FASN

10:00 a.m.  Aquaporin 2 as a Target for NDI Treatment
Dennis Brown, PhD

10:30 a.m.  Novel Therapy for Diabetes Insipidus—The Barry M. Brenner, MD, Endowed Lectureship
Jeff M. Sands, MD, FASN

11:00 a.m.  Mechanisms of Use Thiazide for NDI Treatment
Peter M.T. Deen, PhD

11:30 a.m.  Treatment Targets for Lithium-Induced Diabetes Insipidus
Birgitte Moenster Christensen
Are We Confusing Normal Aging and CKD?

Supported by an independent educational grant from AstraZeneca and FibroGen.

There are marked changes in kidney structure and function with normal aging. This has raised concerns regarding overdiagnosing CKD in older patients. Additionally, the applicability of current staging systems in older patients has not been adequately assessed. This session explores these issues and discusses the benefits and drawbacks for making a distinction between normal aging in the kidney and CKD.

Upon completion of this session, the participant will be able to: 1) describe structural changes in the kidney that occur with even healthy aging; 2) discuss the use and limitations of estimating equation to measure functional changes (GFR estimation) in older adults; 3) differentiate age-related outcomes in CKD; and 4) contrast individualized versus disease-based management approaches in older adults with CKD.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Joseph Rossi Berger, MD, and Richard J. Glassock, MD

10:00 a.m. Does Nephrosclerosis Explain the Age-Related Decline in GFR?
Andrew D. Rule, MD

10:30 a.m. GFR-Estimating Equations in Older Adults: All about Bias, Precision, and Accuracy
Kristian Heldal, MD, PhD

11:00 a.m. Age Differences in Outcomes with CKD
Ann M. O’Hare, MD

11:30 a.m. Is There an Epidemic of CKD in the Elderly?
Natalie Ebert, MD, MPH
Dialysis in the Emerging World: From Epidemiology to Economics

Room 6C

This session addresses the huge challenges faced by emerging economies as they confront a growing epidemic of CKD/ESRD. Topics include 1) the epidemiology of CKD/ESRD in emerging economies, expanding on the concept of dialysis utilization; 2) the potential for the future availability of inexpensive, sturdy, reusable dialysis devices for emerging economies; 3) a discussion on the impact of homegrown clinical research on patient care in these countries; and 4) workforce and payment model innovations specific to these emerging economies.

Upon completion of this session, the participant will be able to: 1) describe the epidemiology of CKD/ESRD in emerging economies and also expand on the concept of variable dialysis utilization; 2) summarize the potential for truly disruptive dialysis technologies to make an impact in these countries; 3) document the huge value of clinical and process of care research focused on local issues; and 4) explore novel business models for workforce and payment aspects of CKD/ESRD care.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators:
Georgi Abraham, MD, and Miguel C. Riella, MD, PhD

10:00 a.m. Doing the Numbers: ESRD/CKD Epidemiology and Utilization in Emerging Economies
Ricardo Correa-Rotter, MD

10:30 a.m. Disruptive Dialysis Technologies for Emerging Economies: Are We There Yet?
Vivekanand Jha, MD

11:00 a.m. Research Initiatives in Emerging Economies: Changing the Status Quo
Zhihong Liu, MD

11:30 a.m. Innovative Workforce and Payment Models for CKD/ESRD Care
Saraladevi Naicker, MD, PhD
The management of diabetes in CKD and dialysis patients is challenging given their altered glucose homeostasis, the uncertain accuracy of glycemic control metrics in this population, and changes in the pharmacokinetics of glucose-lowering drugs that occur in kidney dysfunction, uremia, and dialysis treatment. However, there have been substantial advances in our understanding of their unique glycemic milieu, as well as an expansion in the armamentarium of tools used to monitor and treat diabetes, particularly in this population. This session reviews current literature on glycemic targets and outcomes in CKD and dialysis populations, conventional versus novel glycemic control metrics, and emerging therapeutic agents in diabetes.

Upon completion of this session, the participant will be able to: 1) discuss the current literature on glycemic targets and outcomes in CKD and dialysis populations; 2) identify strengths and limitations of conventional versus novel glycemic control metrics; 3) describe emerging therapeutic agents in diabetes and their role in CKD; and 4) discuss recent data on the safety and effectiveness of low-glucose peritoneal dialysis solutions.

Core Competency: Professionalism, Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Systems-based Practice

Moderators: Katherine R. Tuttle, MD, FASN, and Mark E. Williams, MD, FASN

10:00 a.m. Glycemic Control: How Low Should We Go in CKD and Dialysis Patients? Connie Rhee, MD

10:30 a.m. Fructosamine, Glycated Albumin, and Hemoglobin A1c: Which Metric to Use? Barry I. Freedman, MD

11:00 a.m. New Kids on the Block: Novel Therapeutic Agents in Diabetes Katherine R. Tuttle, MD, FASN

11:30 a.m. Low Glucose–Containing Peritoneal Dialysis Solutions: To Use or Not to Use in PD? Joanne M. Bargman, MD
AKI is now well recognized as a systemic disease associated with numerous extrarenal complications. Basic and epidemiologic research in this area has exploded in the last several years. This session reviews epidemiologic research regarding complications from AKI, with an emphasis on mechanistic insights into these complications gained from basic research. Management in light of mechanism is discussed.

Upon completion of this session, the participant will be able to: 1) describe the basic research that supports that AKI is a systemic disease deleteriously affecting the heart, lung, and brain; 2) explain the risk of cardiovascular complications from AKI; 3) describe the development of pulmonary complications in patients with AKI; and 4) discuss the effect of AKI on brain function.

Core Competency: Patient Care and Procedural Skills, Medical Knowledge

Moderators:
Azra Bihorac, MD, FASN, and Girish K. Mour, MD, MBBS

10:00 a.m.  Introduction: AKI is a Systemic Disease
Sarah Faubel, MD

10:30 a.m.  Cardiovascular Complications after AKI
Ron Wald, MD

11:00 a.m.  Pulmonary Complications of AKI
Patrick T. Murray, MD, FASN

11:30 a.m.  Cerebral and Cognitive Complications of AKI
Andrew Davenport, MD
Thrombotic Microangiopathy in the Transplant

Room 1

Thrombotic microangiopathy (TMA) is a frequent and serious complication in renal transplantation. Etiologies include recurrence of hereditary disease, drug reactions, and de novo disease, including infections and malignant hypertension. This session is a comprehensive review of the pathology and management of transplant patients with TMA.

Upon completion of this session, the participant will be able to: 1) describe the characteristic pathology; 2) explain various causes of TMA in the transplant including genetic mutations; and 3) discuss the pathogenesis/treatment of the distinct entities causing allograft kidney TMA.

Core Competency: Medical Knowledge, Practice-based Learning and Improvement

Moderators:
Neeraja Kambham, MD, and Tibor Nadasdy, MD, PhD

10:00 a.m.  Pathology of TMA in the Transplant Kidney
Zoltan G. Laszik, MD, PhD

10:30 a.m.  Infections in HUS
Jeffrey C. Laurence, MD

11:00 a.m.  Generic Mutations in Hereditary HUS and the Transplant Kidney: New Insights and New Challenges
Peter F. Zipfel, PhD

11:30 a.m.  Pathology and Pathogenesis of Antibody-Mediated Rejection–Associated TMA in the Transplant
Mark Haas, MD, PhD
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Scientific Exposition

A vital part of the Kidney Week® educational experience is found on the scientific exposition floor, Halls B–C, of the San Diego Convention Center. This unparalleled international venue provides demonstrations of products and services that will enhance your understanding of the latest advancements in pharmaceuticals, devices, imaging, and services important to high-quality patient care. On the exposition hall floor, you can engage in peer-to-peer interactions with representatives and businesses that form an integral part of your day-to-day fight against kidney disease and view thousands of accepted poster abstracts.

ASN is a member of the Healthcare Convention and Exhibitors Association (HCEA).

Scientific Exposition Refreshment Breaks are supported by Fresenius Medical Care Renal Pharmaceuticals.

Scientific Exposition Attendee Lounges are supported by Relypsa, Inc.

Scientific Exposition Hours

Thursday, November 5 ................................... 9:30 a.m. – 2:30 p.m.
Friday, November 6 ..................................... 9:30 a.m. – 2:30 p.m.
Saturday, November 7 ................................... 9:30 a.m. – 2:30 p.m.

Extended Poster Hours

Thursday, November 5 ................................... 9:30 a.m. – 4:30 p.m.
Friday, November 6 ..................................... 9:30 a.m. – 4:30 p.m.
Saturday, November 7 ................................... 9:30 a.m. – 4:30 p.m.

Career Fair

The ASN Career Fair offers an excellent opportunity to meet face-to-face with representatives of top employers in the nephrology field—all in one place. Visit with registered employers in Exhibit Hall C.

“Locate Me” Kiosks for Posters and Exhibitors

Poster and exhibit information can be found electronically at the “Locate Me” kiosks in Exhibit Halls A–C.
Exhibitor Spotlights

Two theaters in Exhibit Hall C spotlight industry’s latest advances in nephrology practices, products, services, and technologies during 60-minute presentations (no continuing education credits). Seating is first-come, first-served and limited to 75 participants. All presentations include breakfast or lunch.

Spotlight Schedule

**Thursday, November 5**

10:00 a.m. – 11:00 a.m.
Management of Secondary Hyperparathyroidism (HPT) in Adult Patients on Dialysis: The Role of Sensipar® (cinacalcet), *Supported by Amgen*

11:00 a.m. – 12:00 p.m.
Practical Implications of the Landmark OPAL-HK Study for Hyperkalemia Patients, *Supported by Relypsa, Inc.*

12:00 p.m. – 1:00 p.m.
_velphoro: A Potent, Non-Calcium, Iron-Based Phosphate Binder with a Low Pill Burden, Supported by Fresenius Medical Care Renal Pharmaceuticals*

1:00 p.m. – 2:00 p.m.

**Friday, November 6**

10:00 a.m. – 11:00 a.m.
Follow My Lead: The Amia Automated PD System with Sharesource Connectivity Platform, *Supported by Baxter Healthcare Corporation*

11:00 a.m. – 12:00 p.m.
The Science of Biosimilars, *Supported by Hospira*

12:00 p.m. – 1:00 p.m.
Fabry Disease in the Hemodialysis Setting—Not as “Rare” as We Think, *Supported by Genzyme, a Sanofi company*

1:00 p.m. – 2:00 p.m.
Distinguishing Atypical Hemolytic Uremic Syndrome (aHUS) from Other Thrombotic Microangiopathies (TMAs): A Case-Based Approach, *Supported by Alexion Pharmaceuticals, Inc.*

**Saturday, November 7**

10:00 a.m. – 11:00 a.m.
Practical Implications of the Landmark OPAL-HK Study for Hyperkalemia Patients, *Supported by Relypsa, Inc.*

1:00 p.m. – 2:00 p.m.
ANCA-Associated Vasculitis: Clinical Manifestations and Immunopathogenesis, *Supported by Genentech, A Member of the Roche Group*
# Kidney Week 2015 Exhibitor List

(as of 8/20/2015)

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Exhibitor/Company
Product Descriptions

(as of 8/20/2015)

AbbVie ............................................................. 9 4 3
AbbVie is a global, research-based biopharmaceutical company formed in 2013 following separation from Abbott. The company’s mission is to use its expertise, dedicated people, and unique approach to innovation to develop and market advanced therapies that address some of the world’s most complex and serious diseases. In 2013, AbbVie employed approximately 21,000 people worldwide and markets medicines in more than 170 countries. For further information on the company and its people, portfolio, and commitments, please visit www.abbvie.com. Follow @abbvie on Twitter.

Acumen Physician Solutions.......................................... 1210
Acumen Physician Solutions, a market-leading EHR and practice management system focused on solving clinical and business challenges for nephrology. The Acumen solution was designed by nephrologists and made available under an Internet-based service model. Products include: Acumen Practice Management, Acumen Mobile Charge Capture, Acumen nEHR, and the Acumen PQRS registry. More information regarding APS can be found at www.AcumenMD.com.

Alexion Pharmaceuticals, Inc........................................... 9 0 2
Alexion Pharmaceuticals, Inc. is a biopharmaceutical company focused on serving patients with severe and ultra-rare disorders through the innovation, development, and commercialization of life-transforming therapeutic products. Alexion is the global leader in complement inhibition and has developed and markets a treatment for patients with PNH and aHUS, two debilitating, ultra-rare, and life-threatening disorders caused by chronic uncontrolled complement activation.

Algorithme Pharma ................................................. 1608

Alport Syndrome Foundation, Inc. ..................................... 1142
The Alport Syndrome Foundation is a volunteer led 501(c)(3) nonprofit organization that gives a voice to all those affected by this genetic kidney disease and champions fundraising and research to find a cure. Our mission is to educate and support patients and families that have been affected by Alport Syndrome with the goal of funding research to find effective treatment protocols and a cure.

AMAG Pharmaceuticals, Inc............................................ 6 1 7
AMAG Pharmaceuticals, Inc. is a specialty pharmaceutical company that markets Feraheme® (ferumoxytol) Injection and MuGard® Mucoadhesive in the United States. For additional company information, please visit www.amagpharma.com. AMAG Pharmaceuticals and Feraheme are registered trademarks of AMAG Pharmaceuticals, Inc.; MuGard is a registered trademark of Access Pharmaceuticals, Inc.
American Association of Kidney Patients .............................................. 1045
The American Association of Kidney Patients is dedicated to improving the quality of life for kidney patients through education, advocacy, and the fostering of patient communities. As the oldest fully independent kidney patient organization in America, AAKP has been the leader in the fields of patient engagement, patient-centered education, and public advocacy efforts. AAKP is proud of our legacy, and we consider ourselves among the original pioneers of increased access to high quality care for kidney patients.

American Board of Internal Medicine ............................................. 737
Certification by ABIM has meant that internists have demonstrated that they have the clinical judgment, skills, and attitudes essential for the delivery of excellent patient care. ABIM is not a membership society, but a physician-led nonprofit, independent evaluation organization with accountability to the profession of medicine and the public.

American College of Physicians/Annals of Internal Medicine .................. 502
ACP is a diverse community of internal medicine specialists and subspecialists united by a commitment to excellence. ACP and its 137,000 physician members lead the profession in education, standard-setting, and the sharing of knowledge to advance the science and practice of internal medicine. ACP is the largest medical-specialty society in the world and publishes Annals of Internal Medicine, the number one journal in internal medicine, with an impact factor of 17.8, and circulation of over 85,000. Come see new CME/MOC options including the interactive Virtual Patients and new Grand Rounds series.

American Heart Association, Inc ................................................... 842
Visit the AHA booth to receive information on AHA scientific conferences. AHA/ASA professional membership, scientific publications, AHA’s Focus on Quality Program, patient education, Connected Heart Health, and much more. Learn how you can join more than 30,000 professional members and receive more benefits than ever!

American Kidney Fund ............................................................... 539
The American Kidney Fund (AKF) fights kidney disease through direct financial support to patients in need, health education, and prevention efforts. AKF leads the nation in charitable assistance to dialysis patients, providing support to 1 in 5 US dialysis patients. AKF reaches millions of people annually through health education materials; free kidney health screenings; professional education; online outreach; a toll-free health information Helpline (866-300-2900) and our Kidney Health Educator program.

American Nephrology Nurses’ Association (ANNA) ............................. 618
ANNA is a professional association that represents nurses who work in all areas of nephrology. We are committed to educating, supporting, and inspiring nurses, so they can have a positive impact on the care of individuals with kidney disease. Visit the ANNA booth for information on membership, education events, chapter development, and ANNA resources that will help develop, maintain, and augment competence in practice. Discover the many benefits of ANNA membership and how nurse leaders can learn.
American Regent, Inc. ................................................ 838
American Regent, Inc., a subsidiary of Luitpold Pharmaceuticals, Inc., is the leading manufacturer and distributor of IV iron in the U.S. In addition to Venofer® (iron sucrose injection, USP), American Regent offers Injectafer® (ferric carboxymaltose injection), available in 750 mg/15 mL single-use vials. Visit us at booth 838 to learn more!

American Renal Associates............................................ 603
American Renal Associates is a national provider of dialysis services, employing exclusively the nephrologist partnership model. Together we provide exceptional care and serve over 12,000 dialysis patients. ARA believes that the dialysis clinic is an extension of the nephrology practice. The physician is empowered to ensure high quality care resulting in low staff turnover, excellent patient and staff satisfaction, rapid growth, and among the best clinical outcomes in the industry.

American Society for Apheresis (ASFA) .................................. 739
The American Society for Apheresis (ASFA) is an organization of physicians, scientists, and allied health professionals whose mission is to lead the field of apheresis through patient and donor care, research, education, and advocacy.

American Society of Nephrology ....................................... 929
Visit ASN to access onsite services, including: Renew your ASN membership for 2016; ASN Foundation for Kidney Research; Kidney Health Initiative (KHI); General Contact Information and Assistance; and Publications (JASN, CJASN, NephSAP and Kidney News).

AmeriWater ........................................................ 1439
AmeriWater is a manufacturer, designer, service provider of water treatment equipment to the healthcare industry, specializing in dialysis. AmeriWater’s products are FDA, ISO, ETL/UL certified. The complete line includes every component from the blending valve through the final filter, single patient systems, heat disinfect, water testing, seminars and the only FDA cleared ozone disinfection system for both dialysis water and bicarb systems.

Amgen ............................................................. 703
Amgen is committed to unlocking the potential of biology for patients suffering from serious illnesses by discovering, developing, manufacturing, and delivering innovative human therapeutics. A biotechnology pioneer since 1980, Amgen has reached millions of patients around the world and is developing a pipeline of medicines with breakaway potential.

Amicus Therapeutics ................................................. 730
Amicus Therapeutics is a biopharmaceutical company at the forefront of therapies for rare and orphan diseases. The company is developing novel, first-in-class treatments for a broad range of human genetic diseases, with a focus on lysosomal storage diseases.

Amyloidosis Foundation .............................................. 638
The Amyloidosis Foundation is a nonprofit whose mission is to raise awareness of the amyloidosis diseases and support research towards a cure.
Angelini Pharma Inc. ................................................. 629
Established in the early 20th century, Angelini Pharma Inc. has grown to become an international player in the healthcare field. In January of 2013, Alcavis HDC and Angelini Labopharm were integrated into the parent company Angelini Pharmaceuticals and jointly operate as Angelini Pharma Inc. Angelini Pharma Inc. is now providing clients with the most advanced comprehensive products and services in the market. Our markets include: Dialysis, Wound Care, Devices, and Pharmaceutical.

Aohua Medical Corp. ................................................. 509

Aprima Medical Software, Inc. ........................................ 1508
Aprima offers a fully integrated, single application, single database practice management/ EHR solution, as well as complete RCM services. Our no-template design is chief complaint–driven with an adaptive learning capability based on your style and habits. To learn more about how Aprima can help your practice, visit www.aprima.com, or email info@aprima.com.

Asahi Kasei Medical America Inc. ..................................... 1136
In the dialysis market, Asahi Kasei Medical offers REXEED™ series dialyzers. REXEED™, the high performance polysulfone dialyzer, offers unparalleled performance and patient safety and is offered in multiple sizes including 2.5 square meters. Asahi’s Therapeutic Apheresis Division provides innovative therapies and medical devices for diseases with breakthrough technology for extracorporeal apheresis.

Ascend Clinical ..................................................... 1013
Why do a majority of dialysis facilities partner with Ascend for ESRD laboratory services? Because we are committed to providing the best customer experience for independent dialysis facilities and hospital-based facilities throughout the United States. Ascend specializes in the personal service that recently resulted in an above 98% satisfaction rating amongst our clients. Because our web-based software, LabCheck™ distributes an unmatched, integrated set of services with a real-time results, electronic reporting, customizable workflow, and treatment features to save time and provide you control.

Associates of Cape Cod, Inc. ......................................... 1219

Astute Medical, Inc. ................................................. 1017
Astute Medical’s NEPHROCHECK® Test is the first commercially available acute kidney injury (AKI) risk assessment test that identifies patients at risk for moderate or severe AKI. This “First Of A Kind” urine biomarker test received FDA Clearance in late 2014. The NEPHROCHECK® Test measures two cell cycle arrest biomarkers.

AtCor Medical, Inc. (USA) ............................................. 844
AtCor Medical developed and markets SphygmoCor® systems, the gold standard in noninvasive central blood pressure and pulse wave velocity assessment, used globally in research, clinical practice, and as part of a turnkey service in pharmaceutical clinical trials. SphygmoCor XCEL is a brachial cuff–based system for central blood pressure assessment, providing both brachial and central pressures as well as the central blood pressure waveform and clinical indices. Please visit us to learn more at booth 844 and also visit us on the web at www.atcormedical.com.
AWAK Technologies .......................................................... 1139
AWAK Technologies has developed an advanced sorbent technology for dialysate regeneration for both peritoneal dialysis and hemodialysis. The battery-powered sorbent design can be in any forms and sizes, making miniaturization and portability possible. The vision of having lightweight portable and wearable dialysis machine, providing freedom to patients, is now a reality. www.awak.com.

B. Braun Medical Inc. .......................................................... 713
B. Braun does much more than simply manufacture top quality dialysis machines, dialyzers, and disposables. We offer an integrated system composed of perfectly harmonized components. These include a wide range of therapy options, software solutions for optimal and economical dialysis treatment, and full technical service support. Stop by booth #713 to talk with an expert. See new product offerings. Customers benefit from the expertise of an all-around system supplier. Or, for more information, call 800-848-2066.

Bard Peripheral Vascular .................................................. 834
Bard Peripheral Vascular, Inc. features a range of vascular access products such as dialysis and chemotherapy catheters, as well as feeding tubes and draining systems. EquiStream® Long-Term Hemodialysis catheter used to clean and filter blood. Aspira® Home Drainage System, which allows patients to drain fluid at home.

Baxter Healthcare Corporation ........................................... 545, 729, 1329
Baxter renal products help make renal care options more accessible to the individual. We’re advancing renal care for the millions of patients with end-stage renal disease and acute kidney injury worldwide, while investing in the research and breakthrough technologies to simplify dialysis and therapy. We provide a full range of dialysis and therapy options for patient-specific care, including in-center hemodialysis, home hemodialysis, peritoneal dialysis, and continuous renal replacement therapy, backed by industry-leading services for patients and clinicians.

Biomedica ............................................................ 918
Biomedica Immunoassays provides internationally recognized, high-quality ELISAs for clinical research in the field of cardiovascular and renal diseases, e.g., (Big) Endothelin, proANP, Endostatin, and Sclerostin. All assays are fully validated for clinical research using serum-based calibrators and controls. Our customers include numerous top ranking scientific institutions worldwide, well-known CROs, and laboratories in the pharmaceutical industry. Biomedica also offers C4d antibodies for the detection of humoral transplant rejection. Visit us to find out more about Biomedica and our services.

BIOPAC Systems, Inc. ....................................................... 1147
BIOPAC lets you measure physiology anywhere with innovative, compatible solutions that can be used by anyone for meaningful discovery. We make high-quality scientific tools for physiology measurement and interpretation with superior compatibility and world-class customer service and support. We empower cutting-edge tools that inspire endless discovery in ambulatory, MRI, lab, real-world, and virtual environments.

BioPorto Diagnostics A/S ................................................ 1610
BTG International Inc. ................................................................. 1410
BTG plc is an international specialist healthcare company developing and commercializing products targeting acute care, oncology, and vascular diseases. We are focused in three business areas: Interventional Medicine, Specialty Pharmaceuticals, and Licensing. To find out more about the BTG International group companies and our products, visit www.btgplc.com.

Burkert Fluid Control Systems .................................................. 728
Burkert Fluid Control Systems in Charlotte, NC is the global leader in fluid separated valves, micro pumps, and value-added systems and service. Our robust valves, innovative systems, and experienced team have been trusted for over 30 years by major Hemodialysis Equipment manufacturers as their partner of choice. Our latest Twin Power valves boost performance while reducing space, heat transfer, and power demand by as much as 50 percent.

CardioMed Supplies Inc. ............................................................ 1539
CardioMed Supplies is a manufacturer of long-term dialysis catheters and short-term catheters, utilizing high quality materials and innovative designs. CMS is also proud to introduce the Supercath AZ; unlike needles Supercath’s AZ catheter minimizes the risk of damage to AV fistulas and grafts, enhancing the longevity of the access site.

CDC/Division of Diabetes Translation ........................................ 1444

Christopher Kidd & Associates, LLC ......................................... 1041

Cincinnati Children's Hospital .................................................. 1546
The Nephrology Clinical Laboratory at Cincinnati Children’s Hospital Medical Center specializes in diagnostic testing for thrombotic microangiopathies (atypical HUS and thrombotic thrombocytopenic purpura) and complement-mediated disorders such as membranoproliferative glomerulonephritis. Our internationally recognized Biomarker Laboratory offers a full array of biomarker measurement and discovery services for your clinical or translational research needs.

CMIC Holdings Co., Ltd. ............................................................. 1538
L-FABP is useful renal biomarker originated from Japan. L-FABP enables early diagnosis of diabetic nephropathy, risk differentiation of renal dysfunction, monitoring of treatment effect of renal diseases, and prediction of onset of acute kidney injury. L-FABP is CE-certified and Japanese-reimbursed product.

CryoLife ............................................................................. 1403
CryoLife® cryopreserved vascular allografts are available for below-the-knee bypass and for infected vascular reconstructions. For hemodialysis patients with central venous stenosis or who are catheter dependent, CryoLife offers the HeRO® Graft. CryoLife also distributes the ProCol® Vascular Bio prosthesis for hemodialysis patients after a failed prosthetic AV graft.

Cumberland Pharmaceuticals Inc. ............................................ 1345
Cumberland Pharmaceuticals is a specialty pharmaceutical company whose mission is to acquire currently marketed and late-stage development pharmaceutical products and grow them through marketing to targeted, underserved physician segments. Cumberland is dedicated to providing high-quality products that address unmet medical needs.
DaVita

DaVita Kidney Care is a division of DaVita HealthCare Partners Inc., a Fortune 500® company. A leading provider of dialysis services in the United States, DaVita Kidney Care treats patients with chronic kidney failure and end-stage renal disease. DaVita Kidney Care strives to improve patients' quality of life by innovating clinical care and by offering integrated treatment plans, personalized care teams, and convenient health-management services.

DaVita – Falcon

Falcon Physician tools integrate with the dialysis center and doctor's office, managing kidney patients' health records from CKD through ESRD. Developed and tested with practicing nephrologists, Falcon is supported by a dedicated team of health technology experts. For more information, email falcon@davita.com or call (877) 99-FALCON.

Daxor Corporation

Daxor Corporation's BVA-100® Blood Volume Analyzer is a semi-automated instrument patented for direct measurement of blood volume, red cell, and plasma volume. The system utilizes the Volumex® injection kit for a multi-sample blood volume. Measurement of blood volume is applicable for hypertension, CHF, transfusion, ICU/CCU, anemia, orthostatic hypotension, and syncope.

Dialysis Clinic, Inc.

Dialysis Clinic Inc., the nation’s largest non-profit dialysis organization, provides dialysis treatments in over 200 clinics, 70 hospitals, and in the home setting. With its own laboratory, pharmacy, and research department, DCI offers customized opportunities for dialysis affiliation. For 11 years, the USRDS has recognized DCI for the lowest hospitalization and mortality rates among large dialysis providers.

Diasol Inc.

DiaSorin Inc.

DiaSorin is a world leader in high quality immunodiagnostics for the clinical laboratory. Our menu offering on the LIAISON® systems includes a specialty panel of endocrinology and the LIAISON® 25 OH Vitamin D TOTAL Assay. DiaSorin has distributed more than 200 million vitamin D tests. Visit booth #1214 for information.

Doctors Against Forced Organ Harvesting (DAFOH)

Doctors Against Forced Organ Harvesting is a non-profit organization founded by medical doctors to promote ethical standards in medicine, to provide the medical community and society with objective findings of unethical and illegal organ harvesting, and to end this specific abuse. In the process of forced organ harvesting, the survival of the organ provider is usually jeopardized, and thus making it a crime against humanity, as well as a threat to medical science in general. At present, the most systematic form and the majority of findings of this transplant abuse is being found in China.

DOPPS/Arbor Research.

The DOPPS Program currently includes: the international Dialysis Outcomes and Practice Patterns Study, Peritoneal Dialysis Outcomes and Practice Patterns Study, and the Chronic Kidney Disease Outcomes and Practice Patterns Study, www.DOPPS.org. The Program is coordinated by Arbor Research Collaborative for Health in Ann Arbor, MI, USA.
DSI Renal

DSI Renal is a leading provider of dialysis services in the U.S., offering state-of-the-art treatment for patients suffering from chronic kidney failure. Together with its physician partners, DSI owns and operates over 100 clinics in 22 states. DSI plans for growth through acquisition and development of new clinics as well as through establishment of additional joint venture partnerships with leading nephrologists for the clinic, hospital, and alternate settings. For more info, visit www.dsi-corp.com.

Elsevier

ELSEVIER is a leading publisher of health science publications, advancing medicine by delivering superior reference information and decision support tools to doctors, nurses, health practitioners, and students. With an extensive media spectrum—print, online, and handheld—we are able to supply the information you need in the most convenient format.

Envision Unlimited

ERA-EDTA

ERA-EDTA is a society with about 7,000 members. It organizes annual congresses, educational courses, data collection, and epidemiological studies. It supports fellowships and research projects. Its publications are NDT, CKJ (now open access), and NDT-Educational. The 2016 congress will be held in Vienna (Austria) from May 21 to May 24. Visit the booth to get literature on the next congress and on other current activities.

Etransmedia Technology, Inc.

Etransmedia Technology, Inc. is the nation’s leading nephrology practice management specialist. Our expertise includes billing, practice management, EMR customization, payor contracting, practice assessments, and strategic consulting. DoctorsXL helps nephrology practices optimize their operations by increasing profitability, reducing costs, and eliminating headaches. Excel at the business of medicine, visit www.DoctorsXL.com or call 1-877-370-3145 and ask for Shay Dusek to learn more.

Frenova Renal Research

Frenova Renal Research is the only Phase I-IV drug and device clinical development services partner dedicated exclusively to renal research. We offer a world-class network of resources encompassing more than 200 principal investigators and 250 dialysis research sites. We have bioinformatics capabilities with access to 390,000+ active CKD and 183,000+ active ESRD patients that can help with protocol feasibility and patient enrollment. We understand everything renal, so trust the partner that’s completely renal—Frenova Renal Research. www.FrenovaRenalResearch.com

Fresenius Medical Care – Services

At Fresenius Medical Care – Services (FMS), we deliver superior care that improves the quality of life of every patient, every day, setting the standard by which others in the healthcare industry are judged. Improving the Quality of Life of Every Patient, Every Treatment. FMS considers its relationships with nephrology professionals to be critical in fulfilling that mission in providing exceptional patient care. Come meet our Fresenius Medical Care Services team. www.FreseniusMedicalCare.us
Fresenius Renal Pharmaceuticals ................................. 1303
Fresenius Renal Pharmaceuticals specializes in the prescription needs of the ESRD patient and is dedicated to providing pharmaceuticals to the more than 400,000 individuals undergoing dialysis throughout the United States. Our renal pharmaceutical products include Velphoro® (sucroferric oxyhydroxide) chewable tablets, Venofer® (iron sucrose injection USP), and PhosLyra® (calcium acetate oral solution). Please visit us at booth #1303 or online at www.fmcna.com.

Fresenius Renal Technologies ................................. 1103
For over 30 years, Fresenius Renal Technologies, a division of Fresenius Medical Care North America has been the leading provider of dialysis products in the United States. In-center products include the 2008® series hemodialysis machines, Crit-Line® fluid management technology, Optiflux® dialyzers, Naturalyte®, bibag®, and the Citrasate™ family of concentrates. Home therapies offerings include the 2008K@home machine, WetAlert™ wireless detection, bibag concentrates, the Liberty® cycler, DELFLEX® solution, and stay-safe® connectology. Please visit us at booth #1103 or online at www.fmcna.com.

Genentech, A Member of the Roche Group ..................... 1112, 1118
For more than 35 years, we’ve been following the science, seeking solutions to unmet medical needs. As a proud member of the Roche Group, we make medicines to treat patients with serious medical conditions. We are headquartered in South San Francisco, California.

Genzyme, a Sanofi company ..................................... 535
Genzyme has pioneered the development and delivery of transformative therapies for patients affected by rare and debilitating diseases for over 30 years. With a focus on rare diseases and multiple sclerosis, we are dedicated to making a positive impact on the lives of the patients and families we serve. Visit www.genzyme.com.

George Clinical ..................................................... 523
George Clinical is the leading contract research organization (CRO) in the Asia Pacific region and is the clinical trial delivery arm of The George Institute for Global Health. We provide a full range of trial management services, for both registration and post marketing trials. Our proven track record includes delivering large pivotal trials in the cardiovascular, renal, and diabetes fields. We provide our customers with new ways to access patient populations and to ensure that clinical trials has an impact for clinicians and patients.

Hospira ........................................................ 1429
Hospira, Inc., is the world’s leading provider of injectable drugs and infusion technologies, and a global leader in biosimilars. Through its broad, integrated portfolio, Hospira is uniquely positioned to Advance Wellness™ by improving patient and caregiver safety while reducing healthcare costs. The company is headquartered in Lake Forest, Ill., and has approximately 17,000 employees. Learn more at www.hospira.com.

HRA Healthcare Research & Analytics ............................. 541
IGA Nephropathy Foundation of America, Inc. ........................... 1145

IGA Nephropathy Foundation is a 501(c)(3) nonprofit agency dedicated to funding research into kidney disease and public education and assisting patients and their family. Come meet Donald Jones, former NFL receiver, forced to retire at an early age due to kidney failure. His book, *The Next Quarter*, is a story before and after a kidney transplant. Donald is an inspiration to all.

Immucor, Inc. ...................................................... 1438

Immucor is a global provider of transfusion and transplantation diagnostics. LIFECODES our transplant diagnostics division provides molecular and antibody-based assays for HLA compatibility between donors and recipients. Laboratories globally use LIFECODES products as a part of determining the best path forward for a transplant recipient and lowering the probability of rejection. kSORT is a post-transplant whole blood molecular assay to monitor kidney transplant patients for alloimmune response. Our commitment provides clinicians with pioneering tools to transform the practice of transplant medicine.

Immundiagnostik AG ................................................ 1638

Immundiagnostik is an internationally active diagnostics company that develops innovative immunoassays and other analytical methods for routine and research. The product portfolio is completed by a broad range of antibodies and antigens. We focus on providing effective tools for prevention, differential diagnosis, and therapy monitoring in the areas of gastroenterology, cardiovascular diseases, disorders of the skeletal system, and oxidative stress.

Immutopics International............................................. 1405

FGF-23 ELISA test kits for use in humans and mouse/rat samples along with test kits for several forms of PTH, Osteocalcin, Calcitonin, and related peptides are developed and manufactured by Immutopics. The company specializes in innovative assays for assessing calcium and phosphate regulation. Since 1989, it has been a leading source of immunoassay kits for preclinical studies of bone and mineral disorders in human, rat, mouse, and other mammalian models.

Infian/HII ........................................................... 7 3 5

Infian, formerly known as Health Informatics Intl (HII), is the leading provider of renal Electronic Health Records, medical billing services, and billing software. Infian’s TIME System is an ONC-certified EHR technology for eligible providers as a complete EHR. Further, with our technology division Infian ensures your medical and billing data is secure, accessible, and ultimately improves the care you provide. Infian has been serving the renal industry for over 25 years. Please visit www.infian.com.

Intelomed, Inc. ..................................................... 1607

The tool you’ve been waiting for. CVInsight™, Intelomed’s noninvasive, portable monitor for fluid management, enables tailoring of the dialysis treatment to protect against hypotensive episodes. CVInsight™ displays a real-time, patient-specific assessment of changes in pulse rate and pulse strength allowing the clinician a predictive measure of declining of cardiovascular stability. Visit our booth, and learn about how CVInsight™ enables a new standard of care.
Internal Medicine News ................................................................. 614
Internal Medicine News is an independent newspaper that provides the practicing internist with timely and relevant news and commentary about clinical developments in the field and about the impact of health care policy on the specialty and the physician’s practice.

International Institute for the Advancement of Medicine (IIAM) ............ 616

International Society for Peritoneal Dialysis ..................................... 636

International Society of Nephrology (ISN) ....................................... 521
The International Society of Nephrology (ISN) is a global not-for-profit membership-based scientific society with a humanitarian mission dedicated to pursuing the global advancement of kidney care by supporting education, science, and patient health. It also aims to bridge gaps between the developing and developed world in preventing kidney disease. Kidney International, ISN’s official journal, is widely regarded as the world’s premier journal on the development and consequences of kidney disease.

Intrinsic LifeSciences. ..................................................................... 1709
Intrinsic LifeSciences (ILS) is a diagnostics company developing innovative tests for diagnosis and management of iron deficiency anemia in patients with inflammatory diseases. The company founders are pioneers in the discovery and measurement of hepcidin, the key hormone that regulates human plasma iron levels. At ASN, ILS introduces its IntrinsicDx™ Laboratory, the first CLIA certified and CAP accredited laboratory to offer clinical testing for hepcidin. Meet ILS executives at booth #1709.

Jafron Biomedical Co., Ltd............................................................. 714
Jafron Biomedical, established in 1989, is a leading enterprise in Chinese blood purification industry. Its main products, hemoperfusion cartridges, are of high quality for patients suffering from uremia, intoxication, critical illness, HSP, SLE and liver failure, etc. Now with over 80% market share in China, Jafron’s products have received recognition and support from top experts and experienced doctors and are clinically applied in more than 3,000 influential hospitals. We have got CE certificate for our products, and now we are ready to explore the world-wide market together with you.

Janssen Pharmaceuticals, Inc. ..................................................... 1146
Janssen Pharmaceuticals, Inc., a pharmaceutical company of Johnson & Johnson, provides medicines for an array of health concerns in several therapeutic areas, including: mental health, cardiovascular disease, and diabetes. Our ultimate goal is to help people live healthy lives. We have produced and marketed many first-in-class prescription medications and are poised to serve the broad needs of the healthcare market—from patients to practitioners, from clinics to hospitals.

Japanese Society of Nephrology .................................................... 1244
The mission of the JSN is to aid in the practice and study of nephrology. In order to achieve this, the JSN conducts a range of activities. These include holding regular meetings as a forum for the diffusion of information, producing regular journals, coordinating clinical research, promoting cooperation with related societies in Japan and internationally, as well as providing recognition to those who have made significant contributions in the field of nephrology.

17b
JMS North America ................................................. 1441

JMS is proud to display the SysLoc®MINI and WingEater® safety AVF needles and our buttonhole needle the Harmony® with site preparation tool. JMS North America’s mission is to provide products and services that offer optimal safety solutions for patients and medical professionals. Come by booth #1441 for a demonstration and a brochure.

Kaneka Pharma America LLC ......................................... 1044

Karger Publishers, Inc................................................ 1036
Publications on display include the journals American Journal of Nephrology, Blood Purification, Cardiorenal Medicine, Case Reports in Nephrology and Dialysis, Kidney and Blood Pressure Research, Kidney Diseases and Nephron; and the book series Contributions to Nephrology.

KDIGO (Kidney Disease: Improving Global Outcomes) ...................... 741
Kidney Disease: Improving Global Outcomes (KDIGO) is a Belgian non-profit foundation dedicated to improving the care and outcomes of kidney disease patients worldwide through the development and implementation of global clinical practice guidelines.

Keryx Biopharmaceuticals ............................................ 913
At Keryx Biopharmaceuticals, the patient comes first. Our goal is to bring innovative therapies to market that provide unique and meaningful advantages to patients with renal disease and their healthcare providers, because we know that when patient care improves, everybody succeeds.

Kibow Biotech, Inc. .................................................. 529
Kibow Biotech is proud to reaffirm its “ENTERIC DIALYSIS®” concept originally conceptualized since its inception in 1997. The technology is based on balancing and stabilizing of the “Gut Microbiome” with a patented formulation of probiotics and prebiotics. Our flagship products Azodyl® (for vet), Renadyl™ (for humans) are patented, clinically validated formulations that promote healthy kidney function. Clinical data document that Renadyl™ helps stabilize or improve GFR and also reduces various uremic toxin levels in CKD patients.

LSU Health, Department of Pathology .................................. 1343
LSU Health Shreveport now offers Renal Pathology Outreach Consultation Services which provides nephrologists the diagnostic expertise needed for personalized, quality patient care. We realize that quality and efficiency are of the utmost importance in delivering the best care possible, and we at LSU Health continuously strive to ensure that each client receives the highest quality, accuracy, technologically advanced and personalized services on the market today at the most competitive prices.

Machaon Diagnostics, Inc. ........................................... 1019
Machaon Diagnostics is a clinical reference laboratory, specializing in the diagnosis, treatment, and monitoring of hemostatic and thrombotic conditions. Our 48-hour aHUS Genetic Panel is the fastest genetic test for this disease. Our vision is to deliver customizable reference lab testing to the healthcare and bioscience industries.
Mallinckrodt Autoimmune & Rare Diseases .......................................................... 1129
Mallinckrodt is a global specialty biopharmaceutical and medical imaging business that develops, manufactures, markets, and distributes specialty pharmaceutical products and medical imaging agents. The company’s Autoimmune and Rare Diseases business is focused on providing treatments that address areas of significant unmet need in the fields of nephrology, neurology, rheumatology, and pulmonology. To learn more about Mallinckrodt and Acthar, visit Exhibit #1129 or www.mallinckrodt.com.

Mar Cor Purification ................................................................. 1502
Mar Cor Purification provides complete turnkey 510(k) water treatment systems featuring heat disinfection technology for central RO’s using the CWP platform and acute program settings, the Millennium HX and WRO300H series portable RO’s; bicarbonate and concentrate mixing/distribution systems; consumables such as Minncare disinfectant and FiberFlo endotoxin filters with service from 30 offices nationwide. Contact us at 1-800-633-3080, or visit www.mcpur.com.

Mayo Clinic Referring Physician Office .......................... 1706
Mayo Clinic is an integrated group practice which treats patients at sites in Rochester, MN; Phoenix/Scottsdale, AZ; Jacksonville, FL, and Mayo Clinic Health System, hospitals, and health care facilities serving over 70 communities in Iowa, Georgia, Wisconsin, and Minnesota. Research and education are integral to Mayo Clinic’s practice. http://www.mayoclinic.org/online-services/physicians.html

MedComp ................................................................. 1221
MedComp advances patient outcomes through catheter innovation and design. Recognized as the world leader in long-term dialysis catheters, MedComp has leveraged its engineering expertise into the PICC and Port market. MedComp continues to provide the highest quality products and support to advance patient care.

Merck & Co., Inc. ................................................................. 1711
Today’s Merck is working to help the world be well. Through our medicines, vaccines, biologic therapies, and consumer and animal products, we work with customers and operate in more than 140 countries to deliver innovative health solutions. Merck. Be Well. For more information, visit www.merck.com.

MIQS Software ................................................................. 1311
MIQS is the premier provider of medical record and financial software for dialysis. Our award-winning software supports your clinical efforts, billing needs, and regulatory compliance. Peer-reviewed publications show how we can help improve your patient survival.

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) .... 518
NIH’s National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) conducts and supports medical research and translates findings to bring science-based tools and information to patients, health care providers, and the public. NIDDK addresses diabetes, obesity, nutrition; kidney, urologic, and digestive diseases; and some endocrine, metabolic, and blood disorders.
National Kidney Foundation offers the nephrology community the latest science and practical tools through clinical practice guidelines, community-based educational activities, continuing medical education programs, and professional memberships. Visit our booth #937 to learn more about KDOQI™, KEEP Healthy™, NKF Education Materials, and our scientific journals: AJKD, ACKD, and JRN.

Navix Diagnostix & RenalSono

NEJM Group creates high quality medical resources for research, learning, practice, and professional development designed for academic researchers and teachers, physicians, clinicians, and others in medicine and health care. The New England Journal of Medicine, NEJM Journal Watch, and NEJM Knowledge+ are produced by NEJM Group, a division of the Massachusetts Medical Society. For more information, visit www.nejmgroup.org.

Nephroceuticals is the leader in developing guideline based supplements designed to promote health in people with chronic kidney disease. Our supplements follow the recommendations put forth by the National Kidney Foundation and are the only supplements they endorse. Our supplements are the product of choice for leading institutions including Fresenius Medical Care and DaVita, as well as are recommended by over 500+ leading US nephrologists for their patients. Currently our products can be found in the United States, Taiwan, Australia, the Philippines, UAE, and the Caribbean.

Nephrology News & Issues is a peer-reviewed, monthly news journal that takes a global approach to covering the political, social, and economic issues surrounding the delivery of dialysis and transplantation. Our website, www.NephrologyNews.com, offers daily updates on the latest news developments, as well as an archive of NN&I webinars. Sign up for our three-times-weekly eNewsletters.

Nephrology Practice Solutions (NPS) provides resources and solutions that deliver economic growth, practice stability, and operational efficiencies to our physician partners. As a nephrology-focused practice management company, our solutions are kidney-care specific to ensure readiness and relevance in the evolving healthcare landscape. A healthy practice is the foundation for quality patient care. We offer a variety of services to ensure a successful business experience: Revenue Cycle Management, Practice Management, and Specialized Services.

Nephropath is a private renal pathology laboratory offering over 30 years of experience interpreting renal biopsies. We understand the critical effect time to diagnose can have on the outcome of many renal diseases. With this in mind, we provide Light, Immunofluorescence, and Electron Microscopy results on the same day we receive a biopsy.
Next Generation Clinical Research. .................................................. 1407
Next Generation provides clinical trial services for drug and device development including project management, clinical and safety monitoring, and data management. We are flexible to a variety of therapeutic areas but command particular expertise in nephrology. Our relationships with renal physicians throughout U.S. and Canada provides for successful clinical trials.

NIKKISO CO., LTD. ..................................................... 1719
The pioneer of hemodialysis machines in Japan, NIKKISO CO., LTD. is a leading company in Japanese dialysis market. Now we offer our technology in machines worldwide. Our sophisticated technologies offer reliable dialysis machines and disposable products to the world. To learn more, visit our booth (No.1719) and www.nikkiso.com or www.nikkisoamerica.com.

Nipro Medical Corporation .................................................. 1529
Nipro Medical Corporation, North America, headquartered in Bridgewater, New Jersey, is a distribution division of Nipro Corporation with more than 25 years of experience in the renal market. Its renal portfolio includes dialyzers, blood tubing sets, safety fistula needles, dull fistula needles, and syringes. In the dialysis access management space, Nipro now offers high pressure PTA balloon catheter, hydrophilic guidewires, and introducer sheaths. Nipro Corporation is a leading global healthcare company founded in 1954 and headquartered in Japan. Nipro Corporation employs more than 20,000 team members in 52 countries. Our companies develop and market products in three business segments: Consumer, Medical Devices, and Diagnostics and Pharmaceuticals. Nipro is well regarded for its manufacturing capabilities, consistently innovating to deliver safe, high quality products. We understand the concerns of the healthcare provider, and we are committed to delivering products that improve patient outcomes and the quality of care around the world. We are Nipro, the link between patient and care.

Novartis Oncology .................................................. 1509
Novartis Oncology is a global leader in transforming outcomes for people with cancer. Our research is driven by a distinctive scientific and clinical strategy focused on precision oncology–understanding how cancer develops on a genomic level and developing drugs that hone in on those targets. For more information, visit www.novartisoncology.com.

NxStage Kidney Care .................................................. 503
At NxStage Kidney Care, we believe patients shouldn’t be defined by dialysis. So we designed our centers to help them get back to the things they love. Our compassionate care teams work with patients to understand their unique needs, and we provide flexible, individualized therapy options to help them achieve their health and lifestyle goals. Visit www.nxstagekidneycare.com for more information.

NxStage Medical, Inc. .................................................. 829
NxStage® is more than a company; we are leading the renal revolution. Our innovative products are helping to shape and transform renal care, making it simpler, portable, and expanding treatment options to enhance patient freedom and fulfillment.
OPKO Renal

OPKO Health, Inc. (NYSE: OPK) is a multi-national pharmaceutical and diagnostics company based in Miami, FL. Its Renal Division (www.opkorenal.com) is developing proprietary products to treat secondary hyperparathyroidism (SHPT) associated with chronic kidney disease (CKD) and vitamin D insufficiency. In addition, the Renal Division is developing novel therapies to treat elevated blood phosphorus levels (hyperphosphatemia) in order to improve the control of SHPT in CKD patients.

Otsuka America Pharmaceutical, Inc.

Otsuka America Pharmaceutical, Inc. (OAPI) is an innovative, fast-growing healthcare company that commercializes Otsuka-discovered and in-licensed products in the U.S., with a strong focus on neuroscience, oncology, cardio-renal, and medical devices. For more information, visit www.otsuka-us.com.

Outset Medical

Outset Medical is focused on delivering technology innovation designed to significantly reduce costs for providers and meaningfully improve the patient care experience. The company’s Tablo™ System combines consumer product simplicity, wireless connectivity, and real-time integrated water purification to create a 35-inch dialysis clinic on wheels. Tablo is FDA-cleared for use in acute and chronic care settings, and the company is pursuing FDA clearance for home use through an IDE, which has been approved by the FDA.

Oxalosis and Hyperoxaluria Foundation

Oxford University Press

Oxford University Press is a leading publisher in nephrology journals, books, and online products, and our worldwide publishing furthers the University’s objectives of excellence in scholarship, research, and education. Visit us at booth 1338 today to pick up your free copy of Nephrology Dialysis Transplantation (NDT), find out more about the exciting changes happening with Clinical Kidney Journal (CKJ), and browse our extensive collection of books, available to buy with an exclusive 20% conference discount.

Pacific Rim Pathology

PerfectServe, Inc.

Physician Software Systems, LLC

Physician Software Systems and the Mayo Clinic have developed patient modeling technology that simulates the processes that govern erythropoiesis. Our Anemia Management System analyzes existing patient data to define physiological characteristics and recommends an optimum-individualized ESA dosing regimen, designed to meet your Hgb target for that patient. PhySoft AMS™ improves patient outcomes and quality of life, reduces Hgb variability, minimizes hospitalizations, and significantly reduces drug costs. www.PhySoft.com

PKD Foundation

The PKD Foundation is dedicated to finding treatments and a cure for polycystic kidney disease (PKD) to improve the lives of those it affects. We do this through promoting research, education, advocacy, support, and awareness. Our goal is that one day no one will suffer the full effects of PKD. Please visit us at www.pkdcure.org.
PreventionGenetics .................................................. 506
PreventionGenetics is a leader in providing comprehensive clinical DNA testing offering NextGen Sequencing, Sanger sequencing, and deletion/duplication testing via array CGH for over 1,200 genes. Our highly experienced team of geneticists provide fast turnaround times, outstanding personalized service, and the highest quality testing at the lowest prices possible. PreventionGenetics is CLIA/CAP accredited and has the largest DNA test menu of any laboratory in America.

Prometheus Laboratories Inc........................................... 622
Prometheus is committed to improving lives through the development and commercialization of novel pharmaceutical and diagnostic products that enable physicians to provide greater individualized patient care. We are primarily focused on the detection, diagnosis, and treatment of disorders within the fields of gastroenterology and oncology. We became a part of Nestlé Health Science in July 2011.

Pure Life Renal ..................................................... 1506
Pure Life Renal is a young dialysis organization that acquires, develops, and manages clinics in partnership with nephrologists to provide an exceptional patient care experience. We value the industry knowledge and clinical expertise that our physician partners provide, which is why we strongly embrace the partnership model. Our team has extensive experience, and we have built a reputation for being very physician friendly, patient focused, and sensitive to our employees’ needs.

Quality Dialysis ..................................................... 1417
Quality Dialysis has provided staff-assisted home dialysis in the State of Texas for over 22 years. Founded in 1993, our goal and mission remains unchanged; to educate patients and their family about chronic kidney disease, and to provide quality healthcare services to patients in the comfort of their own home.

Raptor Pharmaceuticals, Inc. .................................... 1143, 1242
Raptor Pharmaceutical Corporation is a global biopharmaceutical company that develops and commercializes life-altering therapeutics that treat rare and serious diseases. Raptor’s commercial product, PROCYSBI, is marketed in the United States and in Europe for the treatment of nephropathic cystinosis in adults and children 6 years and older. The company also has development programs in Huntington’s disease, Nonalcoholic steatohepatitis, and mitochondrial diseases.

Relypsa, Inc. .................................................. 1116, 1119
Relypsa, Inc. is a biopharmaceutical company whose mission is to improve patients’ lives through the discovery, development, and delivery of therapeutics that leverage polymer science and other novel approaches. The company’s lead product candidate, which has completed Phase 3 clinical trials, is being developed for the treatment of hyperkalemia. Hyperkalemia is a life-threatening condition defined as abnormally elevated levels of potassium in the blood, which can present chronically and acutely. More information is available at www.relypsa.com. Visit booth 1119 to learn more.
Renal Research Institute ............................................. 1115
The Renal Research Institute (RRI) is dedicated to advancing therapy options for
dialysis patients to provide the highest caliber of care based on advanced clinical
technology. RRI is committed to research and innovation and to that end organizes the
annual International Conference on Dialysis: Advances in Kidney Disease to be held
January 20-22, 2016 at the Miami Hilton. For more information, please visit

Retrophin, Inc. ...................................................... 5 2 2
Retrophin is a pharmaceutical company focused on the development, acquisition, and
commercialization of drugs for the treatment of serious, catastrophic, or rare diseases
for which there are currently no viable options for patients. For additional information,
please visit www.retrophin.com.

Rockwell Medical .................................................... 8 3 7
Bio-pharma company offering Triferic™ for Iron-Replacement and Hemoglobin-
Maintenance. Delivered via dialysate, replacing 5-7mg of iron lost every hemodialysis
treatment, Triferic™ delivers iron and maintains hemoglobin without increasing
iron stores (in place of IV-iron). Working efficiently with ESA, Triferic™ overcomes
functional-iron-deficiency, while significantly reducing cost. Also, offering Calcitriol
active-vitamin-D injection and high-quality hemodialysis concentrate citric-based
CitraPure®.

Sanofi Renal ........................................................ 4 2 9
Sanofi Renal is focused on improving the care of kidney disease patients worldwide.
The Sanofi Renal organization works to provide value to patients and healthcare
providers not only through its therapeutic products but also through its commitment
to increasing disease awareness, supporting innovative nephrology research, and
expanding access to treatment through patient assistance programs.

Satellite Healthcare/Wellbound........................................ 1339
Satellite Healthcare, Inc., is one of the nation’s first not-for-profit providers of dialysis
services and kidney disease care. Serving the CKD community for over 40 years.
Satellite Healthcare provides FREE early patient wellness education at its home training
centers (WellBound), personalized clinical services, and a complete range of dialysis
therapy choices. This comprehensive offering allows Satellite Healthcare to advance
the standard of CKD care so patients can achieve a better life. Visit kidneysdothat.
org—the online kidney health resource.

Shire.............................................................. 1040
At Shire, we enable people with life-altering conditions to lead better lives. We focus
on developing and delivering innovative medicines for patients with rare diseases
and other specialty conditions to meet significant unmet patient needs. We focus on
providing treatments in Rare Diseases, Neuroscience, Gastrointestinal, and Internal
Medicine, and we are developing treatments for symptomatic conditions treated by
specialist physicians in other targeted therapeutic areas, such as Ophthalmics.
Spectra Laboratories ................................................ 1111
Spectra Laboratories delivers renal-specific testing, analysis, and reporting with the reliability you require to ensure the best outcomes possible for your patients. We provide on-site training and education by certified renal professionals and an extensive courier network. We also have bicoastal operations with dedicated start-up, IT and customer support teams who are ready to address your needs. Our fully integrated ordering and reporting application, Korus™, helps you comply with industry guidelines and our spectra@home™ application provides your patients direct access to their lab results.

Spectral Medical Inc. ................................................ 1046

Sterilis ............................................................. 507
Sterilis is a Massachusetts based company that markets and sells a patent pending, on-site, and portable, point-of-care sterilization system for regulated medical waste (“RMW”). The Sterilis machine converts both Sharps and Red Bag waste to sterile harmless solid waste that can be disposed of with the regular trash. By using the Sterilis machine, medical facilities can experience an approximate 80% reduction in their RMW volume while cutting monthly RMW hauling costs by up to 50%.

Takeda Pharmaceuticals U.S.A. Inc..................................... 1735
Based in Deerfield, IL, Takeda Pharmaceuticals U.S.A, Inc. and Takeda Global Research & Development Center, Inc. market oral diabetes, insomnia, rheumatology, and gastroenterology treatments and seek to bring innovative products to patients through a pipeline that includes compounds in development for diabetes, cardiovascular disease, gastroenterology, and neurology. www.tpna.com

Terumo BCT ........................................................ 819
Terumo BCT is a global leader in blood component, therapeutic apheresis, and cellular technologies. We are committed to advancing apheresis through innovation in plasmapheresis using centrifugal technology. Our collaboration with customers helps enable the best possible procedures today, increase the number of clinicians who adopt these procedures, identify new uses for apheresis, and develop next-generation procedures—all for the patients we ultimately serve.

The Atypical HUS Foundation ......................................... 1540

The Binding Site, Inc. ................................................ 1238
Binding Site is committed to developing special protein assays and automated systems for the improvement of patient care. Our market-leading assay Freelite® for detecting free light chains is widely used in diagnosis and monitoring of myeloma, often complicated by kidney dysfunction. Our patented antibody production technology and medical educators, backed by clinical practice guidelines, provide healthcare professionals tools to significantly improve diagnosis and management of patients. www.thebindingsite.com

The JAMA Network ................................................. 1415
Building on a tradition of editorial excellence, The JAMA Network brings JAMA together with ten specialty journals to offer enhanced access to the research, viewpoints, and medical news shaping medicine today and into the future. JAMA Oncology, a new peer-reviewed journal, launched in 2015.
The Joint Commission ............................................... 1443

Toray Medical Co., Ltd. .............................................. 1037
TORAY, a leading manufacturer of synthetic fibers, is dedicated to the advancement of dialysis products under its corporate slogan, “Innovation by Chemistry.” Toray supports high quality and advanced medical care with our biocompatible polymethylmethacrylate dialyzer, FILTRYZER®, as well as our polysulfone dialyzer and dialysis machine, TR-8000. Please visit our booth 1037 for more details.

Total Quality Medical, Inc. ........................................... 640

Transplant Genomics, Inc. ........................................... 515
Transplant Genomics Inc. (TGI) is a molecular diagnostics company committed to improving organ transplant outcomes, with an initial focus on kidney transplant recipients. Working with the transplant community, TGI is commercializing a suite of tests enabling diagnosis and prediction of transplant recipient immune status. Test results will support clinicians with information to optimize immunosuppressive therapy, enhance patient care, and improve graft survival. Test services are offered through TGI’s CLIA lab in Pleasanton, CA.

U.S. Renal Care, Inc. ................................................ 1503
U.S. Renal Care, Inc. works in partnership with nephrologists and health systems to develop, acquire, and operate quality outpatient treatment centers. USRC serves more than 16,000 patients with their choice of a full range of quality in-center, at-home hemodialysis, and peritoneal dialysis services. USRC operates more than 290 clinics and outpatient programs in 22 states and the territory of Guam.

United States Renal Data System....................................... 941
National data system that collects, analyzes, and distributes information about chronic kidney disease (CKD) and end-stage renal disease (ESRD) in the United States.

University of Missouri School of Medicine,
Office of Continuing Medical Education ........................................... 1707

Vasc-Alert .......................................................... 615
Vasc-Alert uses continually recorded data from your center’s EMR for every treatment session to calculate the actual pressure in the vascular access. The patient data are automatically analyzed by the software, and, if the pressure exceeds a preset threshold for three consecutive treatments, an alert is sent to the center indicating the patient should be examined for possible stenosis. Actionable information is presented to your staff weekly to help them evaluate and care for your patients, allowing them to be referred to a vascular specialist for preventative care in a timely manner.

Wolters Kluwer ...................................................... 916
Wolters Kluwer/Lippincott Williams & Wilkins (LWW) is a leading international publisher of professional health information for physicians, nurses, specialized clinicians, and students. LWW provides essential information for healthcare professionals in print and electronic formats, including textbooks, journals, CD-ROMs, and via Intranets and the Internet. Products available include drug guides, medical journals, nursing journals, medical textbooks, and eBooks.
Women In Nephrology ............................................... 1042
WIN was founded in 1983 by women in the field of nephrology. The overriding goal was to develop and provide mentors to women in the field. WIN strives to aid women develop exciting careers in the field of renal disease. WIN also advocates within the nephrology community for education and research relevant to women. Over the years, WIN has expanded its purpose to mentoring both professional men and women in the field of nephrology.

World Kidney Day (WKD) .............................................. 517
World Kidney Day’s mission is to spread the word about the importance of our kidneys to our overall health and to reduce the frequency and impact of kidney disease worldwide. It is today the most successful initiative to raise awareness with the general public, medical professionals, and government health officials around the world about the dangers of kidney disease. On March 10, 2016, the focus will be on Kidney Disease & Children. Come, visit us, and find out how to get involved!

World Kidney Fund (WKF) ............................................. 519
World Kidney Fund (WKF) is the ISN’s direct online fundraising platform that collects individual donations for specific ISN projects. World Kidney Fund supports projects aimed at improving kidney care around the world and creating long-term, sustainable care to give kidney patients a better future.

Yale Pathology Labs ................................................. 1640
Yale Pathology Labs is a comprehensive anatomic pathology service with the internationally recognized teaching and research expertise of Yale University School of Medicine. When you choose to use Yale Pathology Labs, you will find an exceptional medical community pooling its technical resources and its vast array of human talent to resolve the diagnostic question at hand.

ZOLL Medical Corporation ............................................ 710
ZOLL Medical Corporation designs, manufactures, and markets non-invasive resuscitation devices and software solutions, which help diagnose and treat victims of trauma and sudden cardiac arrest, including the Code-Ready® R Series® defibrillator, AutoPulse® Non-invasive Cardiac Support Pump, and the LifeVest® Wearable Defibrillator. ZOLL’s software solutions automate the collection and management of clinical data.

ZS Pharma .......................................................... 721
ZS Pharma is a publicly traded biopharmaceutical company with offices in San Mateo, CA and Coppell, TX. ZS Pharma recently submitted a New Drug Application to the FDA for its lead therapeutic candidate, ZS-9 for the treatment of hyperkalemia, supported by results of multiple Phase 3 clinical trials which showed its ability to safely and effectively remove excess potassium from the blood and maintain normal potassium levels. ZS Pharma is also pursuing the discovery of additional drug candidates that utilize its novel selective ion-trap technology for the treatment of kidney and liver diseases.
Brief Summary of Prescribing Information. For complete
prescribing information (including Medication Guide),
consult official package insert. H.P. Acthar Gel (repository
corticotropin
injection)
INJECTION,
GEL
for INTRAMUSCULAR / SUBCUTANEOUS use. INDICATIONS
AND USAGE Infantile spasms: H.P. Acthar Gel (repository
corticotropin injection) is indicated as monotherapy for the
treatment of infantile spasms in infants and children under
2 years of age. Multiple Sclerosis: H.P. Acthar Gel
(repository corticotropin injection) is indicated for the
treatment of acute exacerbations of multiple sclerosis in
adults. Controlled clinical trials have shown H.P. Acthar Gel
to be effective in speeding the resolution of acute
exacerbations of multiple sclerosis. However, there is no
evidence that it affects the ultimate outcome or natural
history of the disease. Rheumatic Disorders: As adjunctive
therapy for short-term administration (to tide the patient
over an acute episode or exacerbation) in: Psoriatic arthritis,
Rheumatoid arthritis, including juvenile rheumatoid arthritis
(selected cases may require low-dose maintenance therapy),
Ankylosing spondylitis. Collagen Diseases: During an
exacerbation or as maintenance therapy in selected cases of:
systemic lupus erythematosus, systemic dermatomyositis
(polymyositis). Dermatologic Diseases: Severe erythema
multiforme, Stevens-Johnson syndrome. Allergic States:
Serum sickness. Ophthalmic Diseases: Severe acute and
chronic allergic and inflammatory processes involving the
eye and its adnexa such as: keratitis, iritis, iridocyclitis,
diffuse posterior uveitis and choroiditis, optic neuritis,
chorioretinitis, anterior segment inflammation. Respiratory
Diseases: Symptomatic sarcoidosis. Edematous State: To
induce a diuresis or a remission of proteinuria in the
nephrotic syndrome without uremia of the idiopathic type or
that due to lupus erythematosus. CONTRAINDICATIONS
H.P. Acthar Gel is contraindicated for intravenous
administration. H.P. Acthar Gel is contraindicated where
congenital infections are suspected in infants. Administration
of live or live attenuated vaccines is contraindicated in
patients receiving immunosuppressive doses of H.P. Acthar
Gel. H.P. Acthar Gel is contraindicated in patients with
scleroderma, osteoporosis, systemic fungal infections,
ocular herpes simplex, recent surgery, history of or the
presence of a peptic ulcer, congestive heart failure,
uncontrolled hypertension, primary adrenocortical
insufficiency, adrenocortical hyperfunction or sensitivity to
proteins of porcine origin. WARNINGS AND PRECAUTIONS
The adverse effects of H.P. Acthar Gel are related primarily to
its steroidogenic effects. Not all of the adverse events
described below have been seen after treatment with H.P.
Acthar Gel, but might be expected to occur. [see Adverse
Reactions]. Infections H.P. Acthar Gel may increase the risks
related to infections with any pathogen, including viral,
bacterial fungal, protozoan or helminthic infections. Patients
with latent tuberculosis or tuberculin reactivity should be
observed closely, and if therapy is prolonged,
chemoprophylaxis should be instituted. Cushing’s
Syndrome and Adrenal Insufficiency Upon Withdrawal
Treatment with H.P. Acthar Gel can cause hypothalamicpituitary-axis (HPA) suppression and Cushing’s syndrome.
These conditions should be monitored especially with
chronic use. Suppression of the HPA may occur following
prolonged therapy with the potential for adrenal insufficiency
after withdrawal of the medication. Patients should be
monitored for signs of insufficiency such as weakness,
hyperpigmentation, weight loss, hypotension and abdominal
pain. The symptoms of adrenal insufficiency in infants
treated for infantile spasms can be difficult to identify. The
symptoms are non-specific and may include anorexia,
fatigue, lethargy, weakness, excessive weight loss,

hypotension and abdominal pain. It is critical that parents
and caregivers be made aware of the possibility of adrenal
insufficiency when discontinuing H.P. Acthar Gel and should
be instructed to observe for, and be able to recognize, these
symptoms. [see Information for Patients] The recovery of the
adrenal gland may take from days to months so patients
should be protected from the stress (e.g. trauma or surgery)
by the use of corticosteroids during the period of stress. The
adrenal insufficiency may be minimized in adults and infants
by tapering of the dose when discontinuing treatment. Signs
or symptoms of Cushing’s syndrome may occur during
therapy but generally resolve after therapy is stopped.
Patients should be monitored for these signs and symptoms
such as deposition of adipose tissue in characteristics sites
(e.g., moon face, truncal obesity), cutaneous striae, easy
bruisability, decreased bone mineralization, weight gain,
muscle weakness, hyperglycemia, and hypertension.
Elevated Blood Pressure, Salt and Water Retention and
Hypokalemia H.P. Acthar Gel can cause elevation of blood
pressure, salt and water retention, and increased excretion of
potassium and calcium. Dietary salt restriction and
potassium supplementation may be necessary. Caution
should be used in the treatment of patients with hypertension,
congestive heart failure, or renal insufficiency. Vaccination
Administration of live or live attenuated vaccines is
contraindicated in patients receiving immunosuppressive
doses of H.P. Acthar Gel. Killed or inactivated vaccines may
be administered; however, the response to such vaccines
can not be predicted. Other immunization procedures should
be undertaken with caution in patients who are receiving H.P.
Acthar Gel, especially when high doses are administered,
because of the possible hazards of neurological
complications and lack of antibody response. Masking
Symptoms of Other Diseases H.P. Acthar Gel often acts by
masking symptoms of other diseases/disorders without
altering the course of the other disease/disorder. Patients
should be monitored carefully during and for a period
following discontinuation of therapy for signs of infection,
abnormal cardiac function, hypertension, hyperglycemia,
change in body weight and fecal blood loss. Gastrointestinal
Perforation and Bleeding H.P. Acthar Gel can cause GI
bleeding and gastric ulcer. There is also an increased risk for
perforation in patients with certain gastrointestinal disorders.
Signs of gastrointestinal perforation, such as peritoneal
irritation, may be masked by the therapy. Use caution where
there is the possibility of impending perforation, abscess or
other pyogenic infections, diverticulitis, fresh intestinal
anastomoses, and active or latent peptic ulcer. Behavioral
and Mood Disturbances Use of H.P. Acthar Gel may be
associated with central nervous system effects ranging from
euphoria, insomnia, irritability (especially in infants), mood
swings, personality changes, and severe depression, to
frank psychotic manifestations. Also, existing emotional
instability or psychotic tendencies may be aggravated.
Comorbid Diseases Patients with a comorbid disease may
have that disease worsened. Caution should be used when
prescribing H.P. Acthar Gel in patients with diabetes and
myasthenia gravis. Ophthalmic Effects Prolonged use of
H.P. Acthar Gel may produce posterior subcapsular
cataracts, glaucoma with possible damage to the optic
nerves and may enhance the establishment of secondary
ocular infections due to fungi and viruses. Immunogenicity
Potential H.P. Acthar Gel is immunogenic. Limited available
data suggest that a patient may develop antibodies to H.P.
Acthar Gel after chronic administration and loss of
endogenous ACTH and H.P. Acthar Gel activity. Prolonged
administration of H.P. Acthar Gel may increase the risk of
hypersensitivity reactions. Sensitivity to porcine protein
should be considered before starting therapy and during the

course of treatment should symptoms arise. Use in Patients
with Hypothyroidism or Liver Cirrhosis There is an
enhanced effect in patients with hypothyroidism and in those
with cirrhosis of the liver. Negative Effects on Growth and
Physical Development Long-term use of H.P. Acthar Gel
may have negative effects on growth and physical
development in children. Changes in appetite are seen with
H.P. Acthar Gel therapy, with the effects becoming more
frequent as the dose or treatment period increases. These
effects are reversible once H.P. Acthar Gel therapy is stopped.
Growth and physical development of pediatric patients on
prolonged therapy should be carefully monitored. Decrease
in Bone Density Decrease in bone formation and an increase
in bone resorption both through an effect on calcium
regulation (i.e. decreasing absorption and increasing
excretion) and inhibition of osteoblast function may occur.
These, together with a decrease in the protein matrix of the
bone (secondary to an increase in protein catabolism) and
reduced sex hormone production, may lead to inhibition of
bone growth in children and adolescents and to the
development of osteoporosis at any age. Special
consideration should be given to patients at increased risk of
osteoporosis (i.e., postmenopausal women) before initiating
therapy, and bone density should be monitored in patients
on long term therapy. Use in Pregnancy H.P. Acthar Gel has
been shown to have an embryocidal effect. Apprise women
of potential harm to the fetus. [see Use in Specific
Populations] ADVERSE REACTIONS Please refer to Adverse
Reactions in Infants and Children Under 2 Years of Age for
consideration when treating patients with Infantile Spasms.
The adverse reactions presented are primarily provided for
consideration in use in adults and in children over 2 years of
age, but these adverse reactions should also be considered
when treating infants and children under 2 years of age. H.P.
Acthar Gel causes the release of endogenous cortisol from
the adrenal gland. Therefore all the adverse effects known to
occur with elevated cortisol may occur with H.P. Acthar Gel
administration as well. Common adverse reactions include
fluid retention, alteration in glucose tolerance, elevation in
blood pressure, behavioral and mood changes, increased
appetite and weight gain. Clinical Studies Experience
Because clinical trials are conducted under widely varying
conditions, adverse reaction rates observed in the clinical
trials of a drug cannot be directly compared to rates in the
clinical trials of another drug, and may not reflect the rates
observed in practice. Adverse Reactions in Infants and
Children Under 2 Years of Age While the types of adverse
reactions seen in infants and children under age 2 treated for
infantile spasms are similar to those seen in older patients,
their frequency and severity may be different due to the very
young age of the infant, the underlying disorder, the duration
of therapy and the dosage regimen. Below is a summary of
adverse reactions specifically tabulated from source data
derived from retrospective chart reviews and clinical trials in
children under 2 years of age treated for infantile spasms.
The number of patients in controlled trials at the
recommended dose was too few to provide meaningful
incidence rates or to permit a meaningful comparison to the
control groups. Incidence (%) of Treatment Emergent
Adverse Events Occurring in ≥ 2% of H.P. Acthar Gel
(repository corticotropin injection) Infants and Children
under 2 years of Age with the recommended 75 U/m2 bid
dose (n=122) vs the 150 U/m2 qd dose (n=37)—System
Organ Class: Cardiac disorders: cardiac hypertrophy (3, 0);
Endocrine disorders: Cushingoid (3, 22); Gastrointestinal
disorders: constipation (0, 5), diarrhea (3, 14), vomiting (3,
5); General disorders and administration site conditions:
irritability (7, 19), pyrexia (5, 8); Infections and infestations:
infection1 (20, 46); Investigations: weight gain (1, 3);
Metabolism and nutrition disorders: increased appetite (0, 5),
decreased appetite (3, 3); Nervous system disorders:
convulsion2 (12, 3); Respiratory, thoracic and mediastinal

disorders: nasal congestion (1, 5); Skin and subcutaneous
tissue disorders: acne (0, 14), rash (0, 8); Vascular disorders:
hypertension (11, 19). 1Specific infections that occurred at
≥2% were candidiasis, otitis media, pneumonia and upper
respiratory tract infections. 2In the treatment of Infantile
Spasms, other types of seizures/convulsions may occur
because some patients with infantile spasms progress to
other forms of seizures (for example, Lennox-Gastaut
Syndrome). Additionally the spasms sometimes mask other
seizures and once the spasms resolve after treatment, the
other seizures may become visible. These adverse reactions
may also be seen in adults and children over 2 years of age
when treated for other purposes and with different doses
and regimens. Postmarketing Experience The following
adverse reactions associated with the use of H.P. Acthar Gel
have been identified from postmarketing experience with
H.P. Acthar Gel. Only adverse events that are not listed above
as adverse events reported from retrospective chart reviews
and non-sponsor conducted clinical trials and those not
discussed elsewhere in labeling, are listed in this section.
Because the adverse reactions are reported voluntarily from
a population of uncertain size, it is not always possible to
estimate their frequency or establish a causal relationship to
use with H.P. Acthar Gel. Events are categorized by system
organ class. Unless otherwise noted these adverse events
have been reported in infants, children and adults. Allergic
Reactions Allergic responses have presented as dizziness,
nausea and shock (adults only). Cardiovascular Necrotizing
angitis (adults only) and congestive heart failure.
Dermatologic Skin thinning (adults only), facial erythema
and increased sweating (adults only). Endocrine Decreased
carbohydrate tolerance (infants only) and hirsutism.
Gastrointestinal Pancreatitis (adults only), abdominal
distention and ulcerative esophagitis. Metabolic
Hypokalemic alkalosis (infants only). Musculoskeletal
Muscle weakness and vertebral compression fractures
(infants only). Neurological Headache (adults only), vertigo
(adults only), subdural hematoma, intracranial hemorrhage
(adults only), and reversible brain shrinkage (usually
secondary to hypertension) (infants only). Possible
Additional Steroidogenic Effects Based on steroidogenic
effects of H.P. Acthar Gel certain adverse events may be
expected due to the pharmacological effects of
corticosteroids. The adverse events that may occur but have
not been reported for H.P. Acthar Gel are: Dermatologic
Impaired wound healing, abscess, petechiae and
ecchymoses, and suppression of skin test reactions.
Endocrine Menstrual irregularities. Metabolic Negative
nitrogen balance due to protein catabolism. Musculoskeletal
Loss of muscle mass and aseptic necrosis of femoral and
humeral heads. Neurological Increased intracranial
pressure with papilledema, (pseudo-tumor cerebri) usually
after treatment, and subdural effusion. Ophthalmic
Exophthalmos. DRUG INTERACTIONS Formal drug-drug
interaction studies have not been performed. H.P. Acthar Gel
may accentuate the electrolyte loss associated with diuretic
therapy. USE IN SPECIFIC POPULATIONS Pregnancy
Pregnancy Class C: H.P. Acthar Gel has been shown to have
an embryocidal effect. There are no adequate and wellcontrolled studies in pregnant women. H.P. Acthar Gel
should be used during pregnancy only if the potential benefit
justifies the potential risk to the fetus. Nursing Mothers It is
not known whether this drug is excreted in human milk.
Because many drugs are excreted in human milk and
because of the potential for serious adverse reactions in
nursing infants from H.P. Acthar Gel, when treating a nursing
mother, a decision should be made whether to discontinue
nursing or to discontinue the drug, considering the risk and
benefit to the mother. Pediatric Use H.P. Acthar Gel is
indicated as monotherapy for the treatment of infantile
spasms in infants and children less than 2 years of age. Both
serious and other adverse reactions in this population are


Brief Summary of Prescribing Information. For complete prescribing information (including Medication Guide), consult official package insert. H.P. Acthar Gel (repository corticotropin injection)

INDICATIONS. For INTRAMUSCULAR / SUBCUTANEOUS use. INDICATIONS AND USAGE Infantile spasms: H.P. Acthar Gel (repository corticotropin injection) is indicated for the treatment of infantile spasms in infants and children under 2 years of age. Multiple Sclerosis: H.P. Acthar Gel (repository corticotropin injection) is indicated for the treatment of relapsing-remitting or secondary progressive multiple sclerosis in adult patients. Controlled clinical trials have shown H.P. Acthar Gel to be effective in speeding the resolution of acute exacerbations of multiple sclerosis. However, there is no evidence that H.P. Acthar Gel alters the natural history of the disease.

Rheumatoid Arthritis: As adjunctive therapy for short-term administration (to tide the patient over an acute episode or exacerbation) in: Psoriatic arthritis, Rheumatoid arthritis, andankylosing spondylitis. H.P. Acthar Gel may control arthritides (selected cases may require low-dose maintenance therapy), Ankylosing spondylitis. Collagen Diseases: During an exacerbation or as maintenance therapy in selected cases of: systemic lupus erythematosus, juvenile dermatomyositis (polyarthitis). Dermatologic Diseases: Severe erythema multiforme, Stevens-Johnson syndrome. Allergic States: Serum sickness. Ophthalmic Diseases: Severe acute or chronic allergic conditions involving the eye and its adnexa such as: keratitis, iritis, iridocyclitis, diffuse posterior uveitis and choroiditis, optic neuritis, chloroamphenicol associated ophthalmic inflammation. Respiratory Diseases: Symptomatic sarcoidosis. Edematous State: To induce a diuresis or a remission of proteinuria in the nephrotic syndrome without uremia of the idiopathic type or that due to lupus erythematosus. Glomerulonephritis.

The adverse effects of H.P. Acthar Gel are related primarily to its steroidogenic effects. Not all of the adverse events described below have been seen after treatment with H.P. Acthar Gel, but they are considered to be expected. [See Adverse Reactions]. Infusions H.P. Acthar Gel may increase the risks related to infections with any pathogen, including viral, bacterial, fungal, protozoan or helminthic infections. Patients with signs of an initial infection or of the presence of a septic ulcer, congestive heart failure, uncontrolled hypertension, primary adenocortical insufficiency, adenocortical hyperfunction or sensitivity to proteins of porcine origin, WARTIME USE. The adverse reactions that may occur but have not been reported in clinical trials and those not reported in clinical trials of a drug cannot be compared to rates in the clinical trials of another drug, and may not reflect the rates obtained in practice since patients treated with live vaccines may have that disease worsened. Caution should be used when prescribing H.P. Acthar Gel in patients with a history of varicella (chickenpox) and myasthenia gravis. Ophthalmic Effects Prolonged use of H.P. Acthar Gel may produce posterior subcapsular cataracts, glaucoma with possible damage to the optic nerves and visual field. Use chronically, as an occasional complication of eye disease. Comorbid Diseases Patients with a comorbid disease may have that disease worsened. Caution should be used when prescribing H.P. Acthar Gel to patients with coexisting conditions. Prolonged use of H.P. Acthar Gel may produce postural hypotension, orthostatic hypotension, and myasthenia gravis. 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The adverse effects that may occur but have not been reported in clinical trials of a drug cannot be compared to rates in the clinical trials of another drug, and may not reflect the rates obtained in practice since patients treated with live vaccines may have that disease worsened. Caution should be used when prescribing H.P. Acthar Gel to patients with coexisting conditions.
Caregivers and families of infants and children treated with H.P. Acthar Gel for the treatment of infantile spasms in infants and children less than 2 years of age were evaluated in a randomized, single blinded (video EEG interpreter blinded) clinical trial and an additional active control supportive trial. A responding patient was defined as having both complete cessation of spasms and elimination of hypsarrhythmia. Safety in the pediatric population for infantile spasms was evaluated by retrospective chart reviews and data from non-sponsor conducted clinical trials [see Adverse Reactions]. While the types of adverse reactions seen in infants and children under 2 years of age treated for infantile spasms are similar to those seen in older patients, their frequency and severity may be different due to the very young age of the infant, the underlying disorder, the duration of therapy and the dosage regimen. Effects on growth are of particular concern [see Warnings and Precautions]. Serious adverse reactions observed in adults may also occur in children [see Warnings and Precautions].

Caretakers of patients with infantile spasms should be educated that a fever may not necessarily be due to an infection or fever they should contact their physician. They should be advised that if the patient develops an infection while taking H.P. Acthar Gel treatment and the importance of not missing any doses. Families should be informed of the availability of a Medication Guide, which should be given to the patient and the caregivers of the patient. Patients and caregivers and families should be advised to read the Medication Guide before each administration. Patients should be informed of the availability of a Medication Guide, which should be given to the patient and the caregivers of the patient. Patients should be instructed to read the Medication Guide prior to administering H.P. Acthar Gel. Patients should be instructed to take H.P. Acthar Gel only as prescribed. They should not stop treatment suddenly unless instructed by their physician to do so. Patients, their caregivers and families should be advised as to the importance of the need for careful monitoring while on and during titration from H.P. Acthar Gel treatment and the importance of not missing any scheduled doctor's appointments. Patients, their caregivers and families should be advised that if the patient develops an infection or fever they should contact their physician. They should be educated that a fever may not necessarily be present during infection. The patient should also try to limit contact with other people with infections to minimize the risk of infection while taking H.P. Acthar Gel. [see Warnings and Precautions and Adverse Reactions]. Patients, their caregivers and families should be advised that if the patient experiences an increase in blood pressure they should contact their physician. [see Warnings and Precautions and Adverse Reactions]. Patients, their caregivers and families should be advised that if the patient experiences an increase in blood pressure they should contact their physician. [see Warnings and Precautions].

Patients should be instructed to report any adverse reaction promptly to their physician or the United States toll-free number 1-800-871-7752. Additionally, patients and their caregivers should be advised to call 1-800-332-1122 for assistance in obtaining replacement medication or additional information. The patient's dose should be reduced if a blood pressure episode occurs. If the blood pressure does not return to normal, the patient may need to be reexamined by a physician. [see Warnings and Precautions and Adverse Reactions]. Patients, their caregivers and families should be advised that if the patient experiences an increase in blood pressure they should contact their physician. [see Warnings and Precautions and Adverse Reactions]. Patients, their caregivers and families should be advised that if the patient experiences an increase in blood pressure they should contact their physician. [see Warnings and Precautions].

H.P. Acthar Gel should be informed that the patient may show signs of irritability and sleep disturbances. These effects are reversible once H.P. Acthar Gel therapy is stopped. [see Warnings and Precautions and Adverse Reactions]. Patients, their caregivers and families should be advised that changes in appetite, most often leading to weight gain, are seen with H.P. Acthar Gel therapy, becoming more frequent as the dose or treatment period increases. These effects are reversible once H.P. Acthar Gel therapy is stopped. [see Warnings and Precautions and Adverse Reactions]. Patients, their caregivers and families should be advised that if the patient or the caregiver notices a blood or a change in color of the patient's stool they should contact their physician. [see Warnings and Precautions].

Caregivers and families of infants and children treated with H.P. Acthar Gel should be informed that the patient may show signs of irritability and sleep disturbances. These effects are reversible once H.P. Acthar Gel therapy is stopped. [see Warnings and Precautions and Adverse Reactions]. Patients, their caregivers and families should be advised that changes in appetite, most often leading to weight gain, are seen with H.P. Acthar Gel therapy, becoming more frequent as the dose or treatment period increases. These effects are reversible once H.P. Acthar Gel therapy is stopped. [see Warnings and Precautions and Adverse Reactions]. Patients, their caregivers and families should be advised that if the patient or the caregiver notices a blood or a change in color of the patient's stool they should contact their physician. [see Warnings and Precautions].

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In a select number of patients with proteinuria of nephrotic syndrome

Reduce protein. Reach for remission.

H.P. Acthar® Gel (repository corticotropin injection) is indicated to induce a diuresis or a remission of proteinuria in nephrotic syndrome without uremia of the idiopathic type or that due to lupus erythematosus.

Learn how you can offer your patients a chance at remission at booth #1129

Important Safety Information

- Acthar should never be administered intravenously.
- Administration of live or live attenuated vaccines is contraindicated in patients receiving immunosuppressive doses of Acthar.
- Acthar is contraindicated where congenital infections are suspected in infants.
- Acthar is contraindicated in patients with scleroderma, osteoporosis, systemic fungal infections, ocular herpes simplex, recent surgery, history of or the presence of a peptic ulcer, congestive heart failure, uncontrolled hypertension, primary adrenocortical insufficiency, adrenocortical hyperfunction or sensitivity to proteins of porcine origin.
- The following may be associated with Acthar: increased susceptibility to infections, hypothalamic-pituitary-axis suppression and adrenal insufficiency, Cushing’s syndrome, elevated blood pressure, salt and water retention, hypokalemia, masking of symptoms of other disorders, gastrointestinal perforation and bleeding, behavioral and mood disturbances, worsening of comorbid diseases, ophthalmic effects, immunogenicity potential, negative effects on growth and physical development, decrease in bone density and embryocidal effects. Patients may need to be monitored for signs and symptoms.
- Common adverse reactions for Acthar are similar to those of corticosteroids and include fluid retention, alteration in glucose tolerance, elevation in blood pressure, behavioral and mood changes, increased appetite, and weight gain.
- Specific adverse reactions reported in IS clinical trials in infants and children under 2 years of age included: infection, hypertension, irritability, Cushingoid symptoms, constipation, diarrhea, vomiting, pyrexia, weight gain, increased appetite, decreased appetite, nasal congestion, acne, rash, and cardiac hypertrophy.

Other adverse events reported are included in the full Prescribing Information. Please see the brief summary of the full Prescribing Information on adjacent pages.