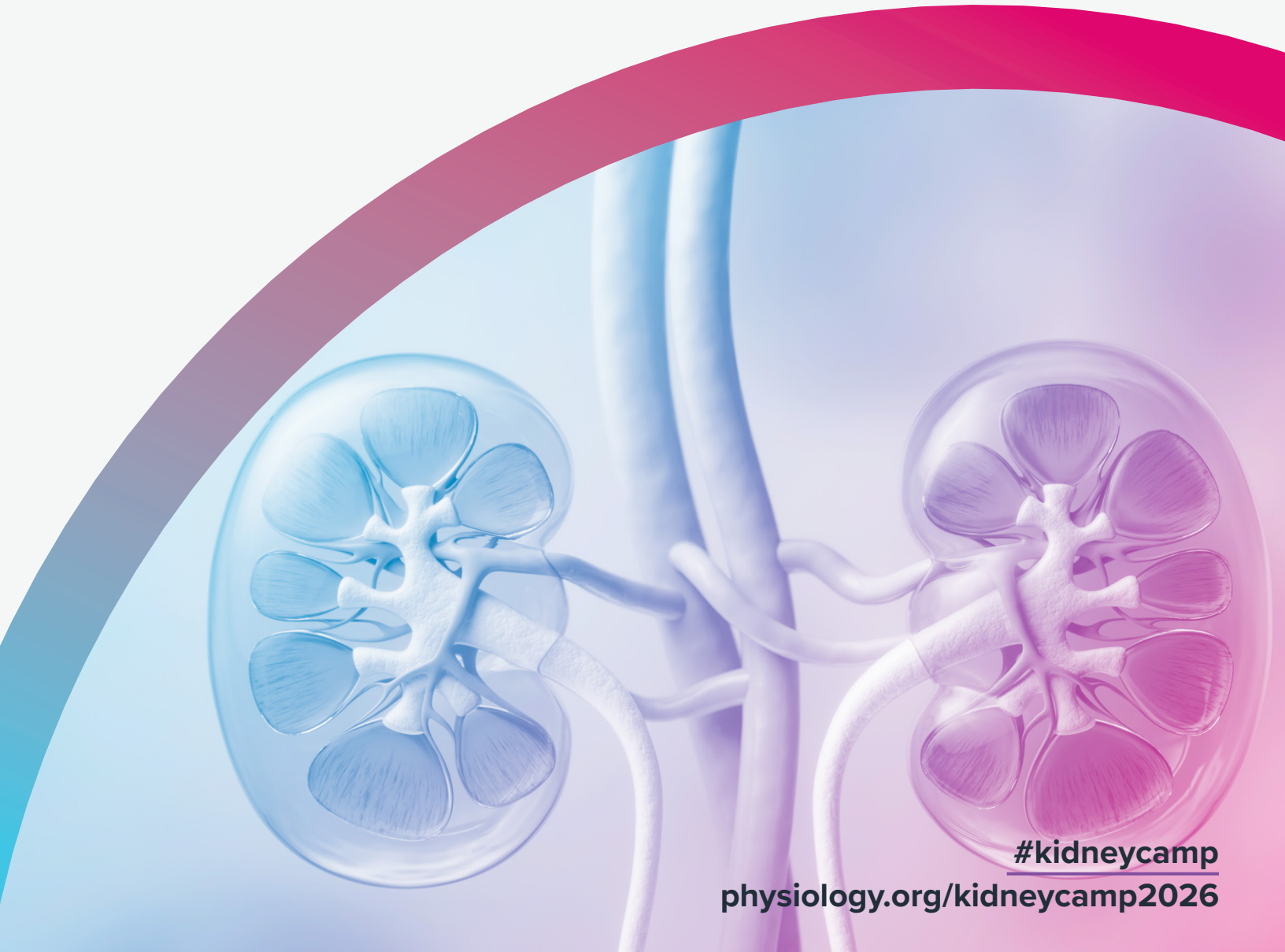
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AMERICAN PHYSIOLOGICAL SOCIETY

CONTROL OF RENAL FUNCTION IN HEALTH AND DISEASE

June 22–25, 2026
Lake Geneva, Wisconsin



#kidneycamp
physiology.org/kidneycamp2026

APS CONFERENCE

Control of Renal Function in Health and Disease

June 22–25, 2026
Fontana-on-Geneva Lake, Wisconsin

Conference Organizers:



Michelle Gumz, PhD
University of Florida



Clintoria Williams, PhD, FAPS
Wright State University

Organizing Committee:

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University of Alabama at Birmingham

Stephanie Franzén, PhD
Uppsala University

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Washington University

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Location

The Abbey Resort
269 Fontana Boulevard, Fontana-On-Geneva Lake, Wisconsin 53125
800.709.1323

On-site Internet

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Registration Details

Your registration for this conference includes entry into all scientific and poster sessions, all meals during the conference, online access to the submitted abstracts and a program book. Abstracts are available online in a password-protected section of the APS website and more details will be emailed to registrants.

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Program Objectives

The objectives of the 2026 Control of Renal Function in Health and Disease conference are to:

- Gather clinical and basic researchers with expertise in the role of renal function and kidney disease in various physiological and pathophysiological conditions affecting human health.
- Convene nationally and internationally renowned scientists to exchange ideas, develop scientific networks, promote collaboration, and discuss recent research developments in renal physiology research.
- Inspire the new generation of young scientists about renal physiology. The meeting will strongly emphasize the trainee's scientific career, with activities at multiple levels, including designated trainee sessions, posters and oral presentations and workshops.

Schedule at a Glance

Monday, June 22

2–4:30 p.m.	Registration Open
4:30–6 p.m.	**Welcome Reception and Networking Event** West Shore Pavilion
6–7 p.m.	**Keynote Presentation** West Shore Pavilion Chairs **Michelle Gumz, PhD**, University of Florida **Clintoria Williams, PhD, FAPS**, Wright State University Speaker **Sex Differences in Kidney Function, Hypertension and Inflammation: How Menopause Changes Everything!** Heddwen Brooks, PhD, Tulane University School of Medicine
7–8 p.m.	**Dinner** West Shore Pavilion
8–8:30 p.m.	**Lightning Talks with Dessert** West Shore Pavilion

Tuesday, June 23

All events held in the Harbor Ballroom unless otherwise noted.

7:30–8:30 a.m.	**Continental Breakfast** Waterfront Restaurant
8:30–10 a.m.	**Session 1: Lymphatics in Kidney Injury and Disease** Chairs **Ina Maria Schiessl, PhD**, Aarhus University **Guiomar N. Gomes, MS, DSc**, Universidade Federal de São Paulo Speakers **Lymphangiogenesis in AKI and CKD** Anupam Agarwal, MD, The University of Alabama at Birmingham **Kidney Lymphatics and the Immune Response to Injury** Joseph M. Rutkowski, PhD, Texas A&M University Oral Presentations **Spatial Transcriptomics Analysis of Tertiary Lymphoid Organs in Pediatric Kidney Transplantation** Ahmad Mohammad, The University of Alabama at Birmingham **Renal Vascular Remodeling in Diabetic Nephropathy** Anders M. Kristensen, Aarhus University **Nephron-specific Pannexin-1 Knockout Alters Sodium Handling in the Kidney** Veniamin Ivanov, PhD, Henry Ford Health
10–10:25 a.m.	Break

Schedule at a Glance

10:30 a.m.–12 p.m.	**Session 2: Immunophysiology** Chairs **Yogesh Scindia, PhD**, University of Florida **Erika I. Boesen, PhD**, University of Nebraska Medical Center Speakers **Immune Pathways in Renal Function: Insights into Health and Disease** Denise C. Cornelius, PhD, University of Mississippi Medical Center **Renal-myeloid Crosstalk in Hypertension** Luis Fernando Michea, Universidad de Chile Oral Presentations **IL-17 Signaling in Juxtaglomerular Cells as a Driver of Kidney Damage in Diabetes** Mariela Mendez, Henry Ford Health **Dietary Modulation of CD4+ T Cell-mediated Renal Dysfunction and Injury During Pregnancy** John Henry H. Dasinger, PhD, Tulane University **The Role of Casts in Proximal Tubule Injury and Atrophy** Anna Faivre, Aarhus University
12–1 p.m.	Networking Lunch
1–4:30 p.m.	Free Time 4:15 p.m.—Group photo in Harbor Ballroom. Everyone wear your Kidney Camp shirts!
3–4:30 p.m.	Optional: Career Development: Speak up for Science: Tools and Strategies for Effective Advocacy Speakers **Carmen De Miguel, PhD**, The University of Alabama at Birmingham **Clintoria Williams, PhD, FAPS**, Wright State University
4:30–6 p.m.	**Session 3: Metabolic Matters: Powering the Kidney in Health and Injury** Chairs **Robert S Hoover, MD**, Tulane University School of Medicine **Amanda Marks-Hultstrom, PhD**, Uppsala University Speakers **Fatty Acid Oxidation in Injured Kidney Tubules: More than the Mitochondria!** Leslie Gewin, MD, WashU Medicine **Off the Rails: Metabolism-transport Uncoupling in the Proximal Tubule** Alison Kriegel, PhD, Augusta University Oral Presentations **Comparative Analysis of Renal Morphology in Male and Female Wistar Rats Submitted to a Resistance Exercise Protocol** Guiomar N. Gomes, Universidade Federal de São Paulo **Proximal Tubule-specific Overexpression of PPAR Alpha Attenuates Tubule Damage in the Male Dahl Salt-Sensitive Rats on a High Salt Diet** Zachary Tacner, Augusta University **Histamine Uptake via Organic Cation Transporters Induces Intracellular Calcium Release in Podocytes of Freshly Isolated Glomeruli** Corey Andrews, MS, Augusta University
6–7 p.m.	**Poster Presentations and Networking Reception**
7–8 p.m.	**Group Dinner** Harbor Lawn
8–8:30 p.m.	**Lightning Talks with Dessert** Harbor Ballroom Karaoke, DJ and Dancing to Follow

Schedule at a Glance

Wednesday, June 24

All events held in the Harbor Ballroom unless otherwise noted.

7:30–8:30 a.m.	**Continental Breakfast** Waterfront Restaurant
8:30–10 a.m.	**Session 4: Omics Advances in Renal Physiology** Chairs **Pablo Ortiz, PhD**, Wayne State University **Waleed Rahmani, MD, PhD**, Washington University in Saint Louis Speakers **Single-cell and Spatial Omics in Kidney Disease** Parker Wilson, MD, PhD, Pennsylvania State University **Empowering Your Research Program Through the Integration of Omics** Jonathan Nelson, PhD, Keck School of Medicine of USC Oral Presentations **High Salt Blunts Time-of-day Transcriptomic Changes, Affecting Metabolic Adaptations in Salt-sensitive Hypertension** Lashodya V. Dissanayake, MD, PhD, University of South Florida **Defining the Interactome of the Soluble (Pro)renin Receptor Using TurboID Proximity Labeling** Mohammad O. Sako, MD, PhD, The University of Utah **High-resolution Spatiotemporal Mapping of the Renal Myeloid Niche During Kidney Repair and Fibrosis** Waleed Rahmani, MD, PhD, Washington University in St. Louis
10–10:25 a.m.	Break
10:30 a.m.–12 p.m.	**Session 5: Weathering the Storm: Renal Responses to Stress and Injury** Chairs **Kelly Hyndman, PhD**, The University of Alabama at Birmingham **Stephanie Franzén, PhD**, The University of Alabama at Birmingham Speakers **The Role of Tubuloglomerular Feedback in AKI to CKD Transition** Ruisheng Liu, MD, PhD, University of South Florida Health **Transdermal GFR Assessment at the Point of Care** Stuart L Goldstein, MD, MediBeacon Oral Presentations **A Murine Model of Recurrent Heat Stress that Causes Kidney Injury** Hung Nguyen, MS, The University of Alabama at Birmingham **Sex Differences in Proximal Tubule Protein Handling and Adaptive Responses After Partial Ischemia Reperfusion Injury in Mice** Katherine E. Shipman, PhD, University of Pittsburgh School of Medicine **A Way to Prevent Sepsis-AKI? Extracorporeal Ozone Acutely Reduces Organ Injury in Experimental Gram-negative Sepsis** Stephanie Franzén, PhD, The University of Alabama at Birmingham
12–1 p.m.	Networking Lunch
1–4:30 p.m.	Free Time
3–4:30 p.m.	Optional: Career Development

Schedule at a Glance

4:30–6 p.m.	**Session 6: The Kidney as a Sensor** Chairs **Justine M. Abais-Battad, PhD**, Medical College of Georgia **Kayla M. Nist, MS, PhD**, Tulane University School of Medicine Speakers **Illuminating The Renal Response to pH Imbalances with Single-cell Resolution** Nathan Zaidman, PhD, University of New Mexico **From Bowman's Space to the Bedside: Intrarenal Pressure Dynamics and the Physiologic Basis of the JuxtaFlow Renal Assist Device** Alencia Washington, PhD, 3ive Oral Presentations **Sex-specific Regulation of Renal Ion Channels in a Novel Rat Model of Hyperkalemia with Chronic Kidney Disease** Sati Alexander, Augusta University **Cardiovascular and Renal Effects of Renal Denervation in Hypertensive Rats with CKD** Erika Nishi, UNIFESP **Two-photon Imaging of the Cl Sensor SuperClomeleon can be Used to Measure NCC-mediated Cl Entry and Intracellular Chloride (Cli) in Distal Convoluted Tubules (DCT) of Live Mice** Pablo A. Ortiz, PhD, Henry Ford Health
6–7 p.m.	**Poster Presentations and Networking Reception**
7–8:30 p.m.	**Dinner** Harbor Lawn

Thursday, June 25

All events held in the Harbor Ballroom unless otherwise noted.

7:30–8:30 a.m.	**Continental Breakfast** Waterfront Restaurant
8:30–10 a.m.	**Session 7: Emerging Therapeutics for Acute and Chronic Kidney Diseases** Chairs **Alexander Staruschenko, PhD, FAPS**, University of South Florida **Sam D. Walton, PhD**, Medical College of Georgia Speakers **Targeting KLF15-glucocorticoid Signaling in Proteinuric Kidney Disease** Sandeep Mallipattu, MD, Renaissance School of Medicine at Stony Brook University **TIE2 Activation by Antibody-clustered Endogenous Angiopoietin-2 Prevents Capillary Loss and Fibrosis in Kidney Disease** Marie Jeansson, PhD, Karolinska Institute Oral Presentations **Time-restricted Feeding Increased Gluconeogenesis and Altered Metabolic Pathway Transcripts in the Renal Cortex of High-salt Fed Dahl Salt-sensitive Rats** Lauren Yunker, PhD, Medical College of Georgia at Augusta University **Multi-omics Analysis Reveals Renal Cortical Sphingolipid Dysregulation as a Candidate Mechanism of Kidney Injury in Salt-sensitive Hypertension** Kosuke Yamaka, MD, PhD, Medical College of Wisconsin **Bariatric Surgery Acutely Reduces Renal Hyperperfusion via Renal Sympathetic Mechanisms in Obesity, Independent of Blood Pressure Changes** Sumit Monu, DVM, PhD, Henry Ford Health
10–10:25 a.m.	Break

Schedule at a Glance

10:30 a.m.–12 p.m.	**Session 8: Cross-organ Conversations in Kidney Physiology and Pathophysiology** Chairs **Jan M. Williams, PhD**, University of Mississippi Medical Center **Babatunde Anidu**, University of Minnesota Speakers **ET-1 Signaling in Immune Cells: Implications for Diabetic Kidney Disease** Carmen De Miguel, PhD, The University of Alabama at Birmingham **Advances in Kidney Proteomics: Spatial Meets Single Cell** Robert A. Fenton, PhD, Aarhus University Oral Presentations **Inhibition of Gut-selective NHE3 Attenuates Hypertension and Renal Damage in Dahl SS Rats** Samuel D. Walton, PhD, Medical College of Georgia **Bmal1 Positively Regulates Renal Endothelin-1 in Female Rats** Maria A. Venegas, PhD, The University of Alabama at Birmingham **Sex-specific Regulation of the Endothelin-1 Pathway in Dahl Salt-sensitive PERIOD-1 Knockout Rats** Lauren G. Douma, PhD, University of Florida
12–1 p.m.	Networking Lunch
1–4:30 p.m.	Free Time
3–4:30 p.m.	Optional: Career Development: Hands-on Coding! Speaker **Jonathan Nelson, PhD**, Keck School of Medicine of USC Bring your laptop and learn the practical aspects of analyzing single-cell and spatial transcriptomics datasets.
4:30–6 p.m.	**Session 9: Next Generation** Chairs **Janos Peti-Peterdi, MD, PhD**, University of Southern California **Clintoria Williams, PhD, FAPS**, Wright State University Speakers **The Molecular and Physiologic Effects of Calcineurin Inhibitors on WNK Body Biomolecular Condensates** Cary Boyd–Shiwarski, MD, PhD, University of Pittsburgh **Lightsheet Microscopy and TubuleMAP for Mapping Whole Intact Nephrons in the Kidney** Chetan Poudel, PhD, Indiana University School of Medicine Oral Presentations **Afferent Renal Denervation Attenuates Sodium Appetite Following Acute Sodium and Volume Depletion** Babatunde Anidu, University of Minnesota **Sall3: A Potential Master Regulator of Distal Convoluted Tubule Cell Identity via Epigenetic Modeling** Lauryn Torres-Hernandez, Johns Hopkins University School of Medicine **Loss of Calprotectin Removes Female Protection From Angiotensin II Hypertension, Cardiac Hypertrophy and Vascular Contractility But Not Renal Fibrosis** Kayla M. Nist, MS, PhD, Tulane University School of Medicine
6–7 p.m.	**Poster Presentations and Networking Reception**
7–8:30 p.m.	**Dinner, Awards and Closing Remarks** Harbor Lawn

Tuesday, June 23

Immunophysiology of the Kidney

Poster Number	Abstract Title
TU001	Calprotectin is Required for Premenopausal Protection From Angiotensin II-induced Hypertension and Kidney Dysfunction
TU002	CD8+ T Cells Mediate Kidney Fibrosis in Diet Induced Obesity
TU003	Exercise Speeds Recovery from Renal Ischemia-reperfusion Injury
TU004	Sex-dependent Role of Calprotection in Renal Myeloid Cell Infiltration During ANG II Hypertension
TU005	Toll Like Receptor 4 in Salt-sensitive Hypertension and Renal End-organ Damage
TU006	Whole Kidney Lysate Masks Sex-specific Immune Signatures Revealed by Renal Endothelial RNA-seq in Salt-sensitive Hypertension

New Approach Methodologies for Understanding Kidney Function and Dysfunction

Poster Number	Abstract Title
TU007	Advancing Kidney Disease Research Through Access to Human Transplant Tissues and Functional Translational Cores
TU008	Defining the Cytoskeletal Interactome of the Proximal Tubule: A Network Analysis of Payload-specific ADC Nephrotoxicity
TU009	Magnetic Resonance Imaging in Renal Studies
TU010	Tight Junction Proteins Define the Functional Compartments of a Novel Intercellular Channel Involved in Paracellular and Transcellular Ion Transport Within Murine Thick Ascending Limb
TU011	Using Graphical Analysis to Understand Kidney Function

Therapeutic Targets and Translational Interventions in Acute and Chronic Kidney Diseases

Poster Number	Abstract Title
TU012	CD19-targeted Bispecific T-cell Engager Achieves Chimeric Antigen Receptor T-cell-like B-cell Depletion and Reverses Established Lupus Nephritis
TU013	Cross-species Transcriptomic Insights into Molecular Pathways Linking AKI-to-CKD Progression with Neuropsychiatric Complications
TU014	Kidney Abnormalities Resulting From Notch Deficient Nephrogenesis are Rescued with Inactivation of Lft88
TU015	PAR1 Inhibition with Vorapaxar Reduces Renal Macrophage Infiltration and Remodels Pro-resolving Lipid Mediator Profiles in Type 2 Diabetic Nephropathy
TU017	Pretreatment of DRD4 Agonist Reduces Apoptosis, Oxidative Stress and Acute Kidney Injury in the Mice with Cisplatin Treatment
TU018	Proximal Tubular FoxO3 Deletion Protects Against Acute Kidney Injury but Exacerbates Response to Chronic Injury
TU019	The Choice of Counterion Influences Renal Side-effects of Lithium-based Therapies
TU020	The Role of Casts in Proximal Tubule Injury and Atrophy
TU021	Therapeutic Targeting of the ANGPT2/TIE2 Signaling Axis Improves Diabetic Nephropathy in the BTBR Ob/Ob Mouse

Wednesday, June 24

Sex Differences and Hormonal Regulation of Kidney Function

Poster Number	Abstract Title
WE001	Elucidating a Potential Role for OLFR-558 in Maternal Outcomes
WE002	GPER1 is a Modulator of OR51E1 and OR51E2 Signaling
WE003	Investigating Olfactory Receptor 558 (Olfr558) Mediated Sex Differences in Blood Pressure Regulation and Aging
WE004	Investigating Olfr558 and Olfr78 in the Kidney During Early Postnatal Development
WE005	Ovarian Hormones Contribute to Cellular Proliferation Following 5/6 Nephrectomy in MicroRNA-146b-/- Female Sprague Dawley Rats
WE007	Sex Differences in the Kidney Circadian Transcriptome
WE008	Sex-specific Effects of Early Life Stress on Cardiovascular Rhythmicity and Vulnerability to Circadian Stress
WE009	Sex-specific Regulation of the Renal Epithelial Sodium Channel and Aquaporin-2 in Dahl Salt-sensitive PERIOD-1 Knockout Rats

"Omics" in Renal Physiology and Pathophysiology

Poster Number	Abstract Title
WE010	A Tri-omic Transcriptomic Analysis Identifies a Glomerular-specific Epigenetic Vulnerability in Hydralazine-induced Vasculitis
WE011	Distal Convoluted Tubule Proliferative Cell State Transition Signal Transduction
WE012	Notch Signaling and mTOR Complex 1 Play Opposing Roles in Regulation of Kidney Collecting Duct Cell Type Plasticity
WE013	Pannexin 1 and Pannexin 3 Control Renin-secreting Cell Phenotype
WE014	Spatial Transcriptomic of Mice Kidneys Indicates Tonicity and NFAT5 Mediated Gene Expression Pattern
WE015	A Comparison of the Cardiorenal Effects of the GLP1 Receptor Agonists Semaglutide and Retatrutide in Adolescent Male Mice

Thursday, June 25

Emerging Topics in Renal Physiology

Poster Number	Abstract Title
TH002	Pannexin 1 Intracellular Loop Motif Y198 Influences Renal Hemodynamics
TH003	Phenotypic Variation in Early-stage Embryos of the Zebrafish (Danio rerio)
TH004	Postmenopausal Females Exhibit Limited Renal Compensation During Seasonal Environmental Heat Stress: A Pilot Study
TH005	Refining the Defining of Acute Kidney Injury: Physiological Insights From Clinical Cohorts
TH006	Reprogramming the Renal Sodium Set Point: A Zinc–ENaC Axis in Hypertension

Thursday, June 25

Interorgan Crosstalk–Integrative Renal Physiology

Poster Number	Abstract Title
TH007	Cardiovascular and Renal Effects of Renal Denervation in Hypertensive Rats with CKD
TH008	Circulating Myeloid Cells Restrain Salt-sensitive Hypertension by Preserving Endothelial Function and Renal Sodium Handling
TH009	Magnitude and Variability of Renal Vascular Conductance Responses to Exercise and Cold in Healthy Black Adults

Intraorgan Crosstalk–Renal Hemodynamics, Metabolism and Tubular Function

Poster Number	Abstract Title
TH010	A Novel Neuronally Differentiated Endothelial Cell Subtype Regulates Organ Blood Flow in the Kidney and Brain
TH011	Elucidating Mechanisms Behind the Microbial Regulation of Aldosterone
TH012	Endothelin Receptor Antagonism Alleviates Cardiorenal Dysfunction in a Murine Model of Systemic Lupus Erythematosus
TH013	Immunometabolic Pathways in Chronic Kidney Disease Identified by Transcriptomic Analysis of an Adenine Diet–unilateral Nephrectomy Rat Model
TH014	Integrated Extracellular Flux Analysis Reveals Segment-specific Substrate-induced Energetic Programs in Renal Tubules
TH015	Role of the Novel Kinase Traf2 and NCK Interacting Kinase (TNIK) in Renal NaCl Handling Through Regulation of the Na+/K+/2Cl- Cotransporter NKCC2
TH016	Tubular Inhibition of ACOX1 Worsens Injury in Chronic Kidney Disease

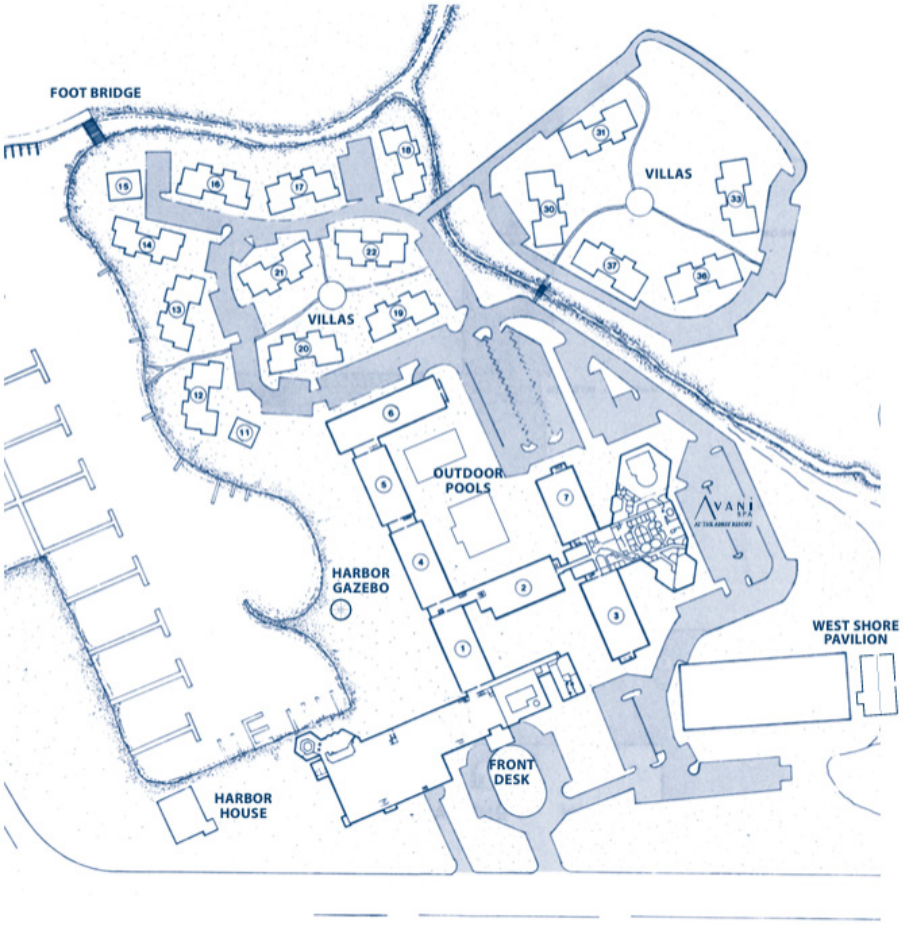
Late-breaking Abstracts

Poster Number	Abstract Title
TH017	Chronic Liver Disease: A Risk Factor for Fungal Pyelonephritis
TH018	Influence of Sodium Bicarbonate on the Exercise Pressor Reflex in Patients with Chronic Kidney Disease
TH019	Sex-specific Kinetics of Immune Cell Infiltration During Angiotensin II–induced Hypertension
TH020	Time-restricted Feeding Attenuates Pro-inflammatory Lipid Mediators in Diet-induced Obese Mice
TH021	Tubule-specific Effects of Low Potassium Intake

Map/Floor Plan

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Present your work at the 2027 American Physiology Summit (#APS2027) to gain valuable feedback and make vital connections.

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We will begin accepting abstracts Oct. 1, 2026. Submit your research and apply for awards at **physiology.org/APS2027**.

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