This Month’s Highlights

UP FRONT MATTERS

Editorials

1 Against TREATing All Patients Alike: Lessons from an FDA Advisory Committee Meeting
Wolfgang C. Winkelmayer

2 Risks and Benefits of Sweet Pee
Florian Lang
• See related articles by Vallon et al. (pp. 104–112) and Ly et al. (pp. 113–123).

5 Klotho: An Elixir of Youth for the Vasculature?
Rukshana Shroff and Catherine M. Shanahan
• See related article by Hu et al. (pp. 124–136).

7 Targeting Complement C5 in Atypical Hemolytic Uremic Syndrome
David J. Salant
• See related article by Goicoechea de Jorge et al. (pp. 137–149).

9 Is Cystatin C the Answer to Detecting Progression in CKD?
Paul E. de Jong and Ron T. Gansevoort
• See related article by Peralta et al. (pp. 147–155).

11 Navigating the Challenges of Fibrosis Assessment: Land in Sight?
Agnes B. Fogo and Charles E. Alpers
• See related article by Farris et al. (pp. 176–186).

Brief Reviews

14 Adenosine Generation and Signaling during Acute Kidney Injury
Jessica D. Bauerle, Almut Grenz, Jae-Hwan Kim, H. Thomas Lee, and Holger K. Eltzschig

21 Macrophages in Renal Disease
Yiping Wang and David C.H. Harris

Special Article

28 Acute Kidney Injury in Older Adults
Sharon Anderson, Basil Eldadah, Jeffrey B. Halter, William R. Hazzard, Jonathan Himmelfarb, Frances McFarland Home, Paul L. Kimmel, Bruce A. Molitoris, Mahadev Murthy, Ann M. O’Hare, Kenneth E. Schmader, and Kevin P. High

Science in Renal Medicine

39 Telomeres and Telomerase in Renal Health
Lauren P. Wills and Rick G. Schnellmann

BRIEF COMMUNICATION

43 ★ MCP-1 Contributes to Arteriovenous Fistula Failure

BASIC RESEARCH

49 Mineralocorticoids Stimulate the Activity and Expression of Renal H⁺,K⁺-ATPases
Megan M. Greenlee, I. Jeanette Lynch, Michelle L. Gumz, Brian D. Cain, and Charles S. Wingo

59 Calcitonin Has a Vasopressin-like Effect on Aquaporin-2 Trafficking and Urinary Concentration
Richard Bouley, Hua A.J. Lu, Paula Nunes, Nicolas Da Silva, Margaret McLaughlin, Ying Chen, and Dennis Brown

73 Uncovering Genes and Regulatory Pathways Related to Urinary Albumin Excretion
Rachael S. Hageman, Magalie S. Leduc, Christina R. Caputo, Shigm-Wern Tsaih, Gary A. Churchill, and Ron Korstanje

Red star ★ indicates articles that are features in This Month’s Highlights.
Lack of Renal Dopamine D₅ Receptors Promotes Hypertension
Laureano Asico, Xiaojie Zhang, Jifu Jiang, David Cabrera, Crisanto S. Escano, David R. Sibley, Xiaoyan Wang, Yu Yang, Roslyn Mannon, John E. Jones, Ines Armando, and Pedro A. Jose

Blockade of Wnt/β-Catenin Signaling by Paricalcitol Ameliorates Proteinuria and Kidney Injury
Weichun He, Young Sun Kang, Chunsun Dai, and Youhua Liu

SGLT2 Mediates Glucose Reabsorption in the Early Proximal Tubule
Volker Vallon, Kenneth A. Platt, Robyn Cunard, Jana Schroth, Jean Whaley, Scott C. Thompson, Hermann Koepsell, and Timo Rieg
*See related editorial by Lang (pp. 2–5).*

The Sweet Pee Model for Sglt2 Mutation
Joseph P. Ly, Tuncer Onay, Karen Sison, Gavasker Sivaskandarajah, Venkata Sabbisetti, Lingli Li, Joseph V. Bonventre, Ann Flenniken, Neal Paragas, Jon M. Barasch, S. Lee Adamson, Lucy Osborne, Janet Rossant, Jurgen Schnermann, and Susan E. Quaggin
*See related editorial by Lang (pp. 2–5).*

Klotho Deficiency Causes Vascular Calcification in Chronic Kidney Disease
Ming Chang Hu, Mingjun Shi, Jianning Zhang, Henry Quiñones, Carolyn Griffith, Makoto Kuro-o, and Orson W. Moe
*See related editorial by Shroff and Shanahan (pp. 5–7).*

The Development of Atypical Hemolytic Uremic Syndrome Depends on Complement C5
Elena Goicoechea de Jorge, Paolo Macor, Danielle Paixão-Cavalcante, Kirsten L. Rose, Franco Tedesco, H. Terence Cook, Marina Botto, and Matthew C. Pickering
*See related editorial by Salant (pp. 7–9).*

Cystatin C Identifies Chronic Kidney Disease Patients at Higher Risk for Complications
Carmen A. Peralta, Ronit Katz, Mark J. Sarnak, Joachim IX, Linda F. Fried, Ian De Boer, Walter Palmas, David Siscovick, Andrew S. Levey, and Michael G. Shlipak
*See related editorial by de Jong and Gansevoort (pp. 9–11).*

Preoperative Proteinuria Predicts Adverse Renal Outcomes after Coronary Artery Bypass Grafting
Tao-Min Huang, Vin-Cent Wu, Guang-Huar Young, Yu-Feng Lin, Chih-Chung Shiao, Pei-Chen Wu, Wen-Yi Li, Hsi-Yu Yu, Fu-Chang Hu, Jou-Wei Lin, Yih-Shang Chen, Yen-Hung Lin, Shoei-Shen Wang, Ron-Bin Hsu, Fan-Chi Chang, Nai-Kuan Chou, Tzung-Shinn Chu, Yu-Chang Yeh, Pi-Ru Tsai, Jench-Wen Huang, Shuei-Liong Lin, Yung-Ming Chen, Shen-Je Ko, and Kwan-Dun Wu, on behalf of the National Taiwan University Hospital Study Group of Acute Renal Failure

MCP-1 Gene Activation Marks Acute Kidney Injury

Morphometric and Visual Evaluation of Fibrosis in Renal Biopsies
Alton B. Farris, Catherine D. Adams, Nicole Broussaides, Patricia A. Della Pelle, A. Bernard Collins, Ellie Moradi, R. Neal Smith, Paul C. Grimm, and Robert B. Colvin
*See related editorial by Fogo and Alpers (pp. 11–13).*

Postinfectious Glomerulonephritis in the Elderly
Samih H. Nasr, Mary E. Fidler, Anthony M. Valeri, Lynn D. Cornell, Sanjeev Sethi, Amy Zoller, Michael B. Stokes, Glen S. Markowitz, and Vivette D. D’Agati