

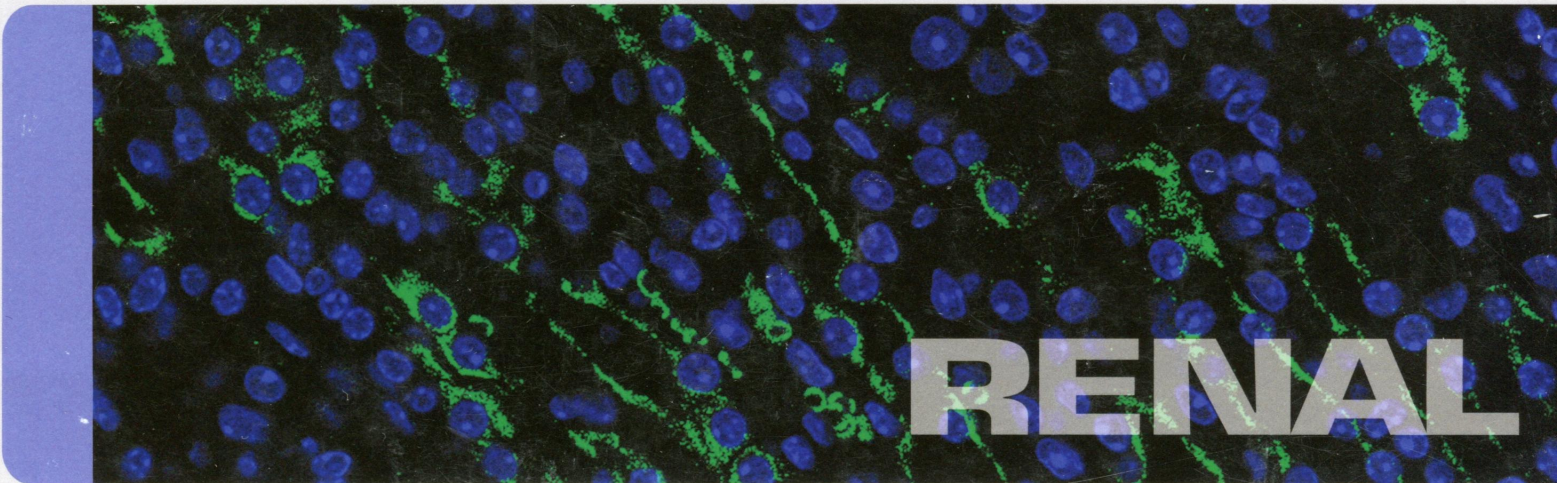
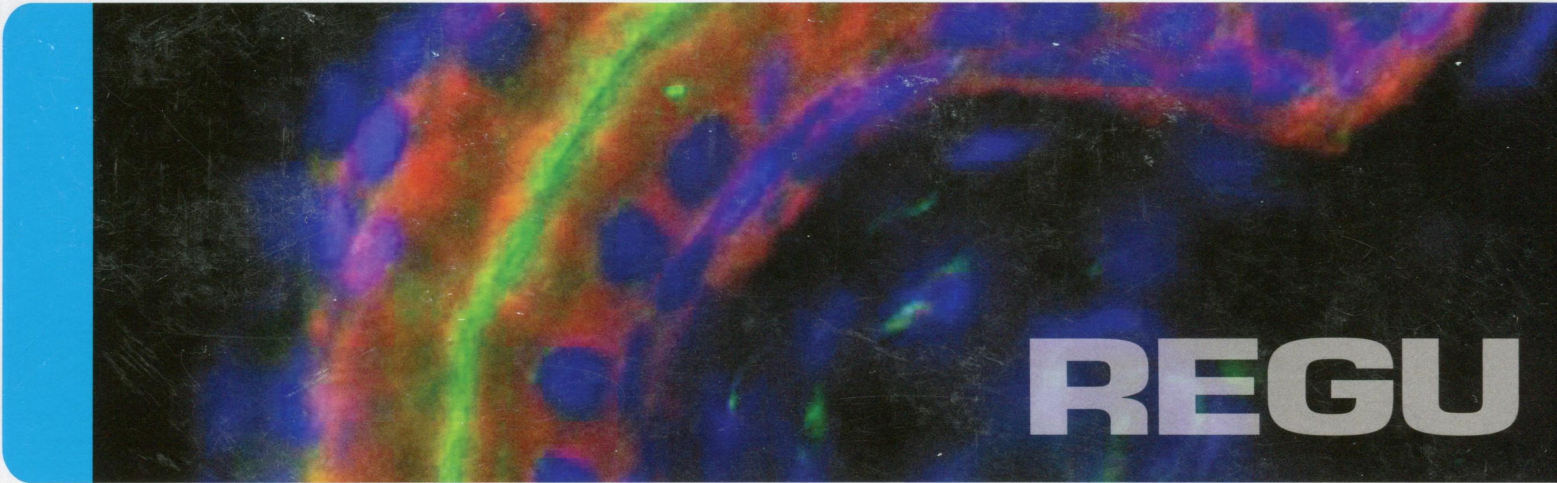
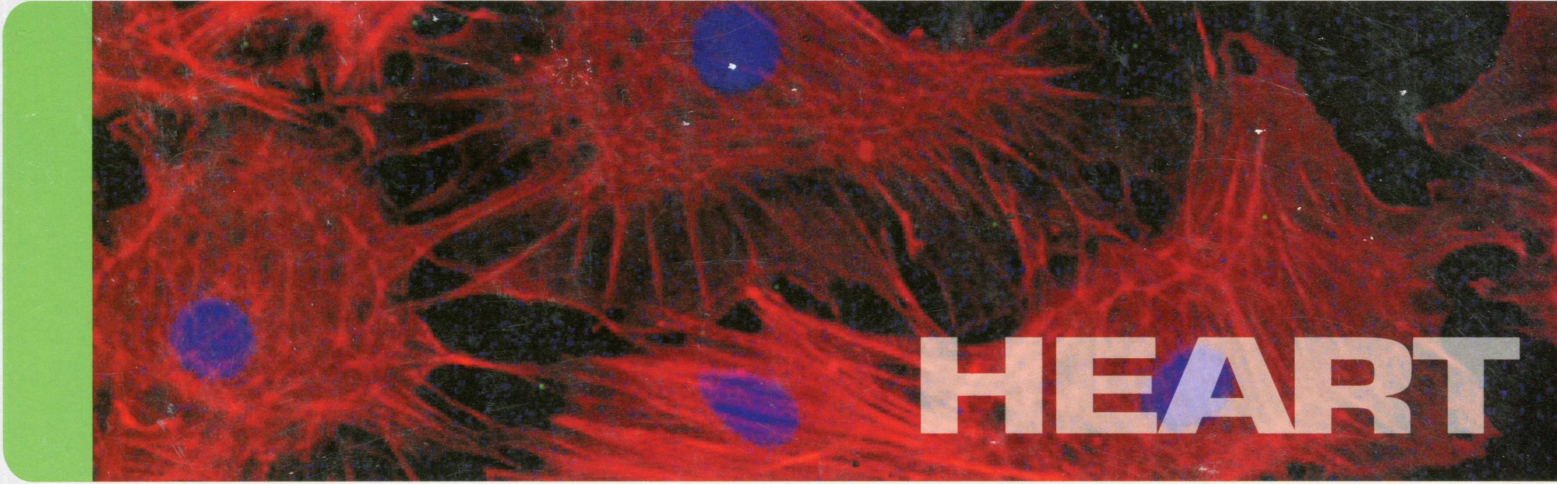
74
A 47/jp 1

AMERICAN JOURNAL OF PHYSIOLOGY

volume 306

no. 6

June 2014



2 of 2

PUBLISHED BY THE AMERICAN PHYSIOLOGICAL SOCIETY

American Journal of Physiology- Heart and Circulatory Physiology

June 1, 2014

CALL FOR PAPERS

Sex and Gender Differences in Cardiovascular Physiology—Back to the Basics

Testosterone induces apoptosis in vascular smooth muscle cells via extrinsic apoptotic pathway with mitochondria-generated reactive oxygen species involvement

R. A. M. Lopes, K. B. Neves, C. R. Pestana, A. L. Queiroz, C. Z. Zanotto, A. Z. Chignalia, Y. M. Valim, L. R. Silveira, C. Curti, and R. C. Tostes

H1485

VASCULAR BIOLOGY AND MICROCIRCULATION

Vasodilator responses to acetylcholine are not mediated by the activation of soluble guanylate cyclase or TRPV4 channels in the rat

E. A. Pankey, M. Kassan, S.-K. Choi, K. Matrougui, B. D. Nossaman, A. L. Hyman, and P. J. Kadowitz

H1495

Tempol improves cutaneous thermal hyperemia through increasing nitric oxide bioavailability in young smokers

N. Fujii, V. E. Brunt, and C. T. Minson

H1507

Aging increases capacitance and spontaneous transient outward current amplitude of smooth muscle cells from murine superior epigastric arteries

S. Hayoz, V. Bradley, E. M. Boerman, Z. Nourian, S. S. Segal, and W. F. Jackson

H1512

MUSCLE MECHANICS AND VENTRICULAR FUNCTION

Matrix elasticity regulates the optimal cardiac myocyte shape for contractility

M. L. McCain, H. Yuan, F. S. Pasqualini, P. H. Campbell, and K. K. Parker

H1525

CARDIAC EXCITATION AND CONTRACTION

Are SR Ca content fluctuations or SR refractoriness the key to atrial cardiac alternans?: insights from a human atrial model

C. A. Lugo, I. R. Cantalapiedra, A. Peñaranda, L. Hove-Madsen, and B. Echebarria

H1540

INTEGRATIVE CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY

Chronic inhibition of phosphodiesterase 5 with tadalafil attenuates mitochondrial dysfunction in type 2 diabetic hearts: potential role of NO/SIRT1/PGC-1 α signaling (**Translational Physiology**)

S. Koka, H. S. Aluri, L. Xi, E. J. Lesnfsky, and R. C. Kukreja

H1558

Activation of α_{1B} -adrenoceptors contributes to intermittent hypobaric hypoxia-improved postischemic myocardial performance via inhibiting MMP-2 activation

L. Gao, L. Chen, Z.-Z. Lu, H. Gao, L. Wu, Y.-X. Chen, C.-M. Zhang, Y.-K. Jiang, Q. Jing, Y.-Y. Zhang, and H.-T. Yang

H1569

Pioglitazone reduces angiotensin II-induced COX-2 expression through inhibition of ROS production and ET-1 transcription in vascular cells from spontaneously hypertensive rats

J. V. Pérez-Girón, R. Palacios, A. Martín, R. Hernanz, A. Aguado, S. Martínez-Revelles, M. T. Barrús, M. Salaces, and M. J. Alonso

H1582

CORRIGENDUM

Corrigendum for Suwanabol PA et al. Volume 302/71, June 1, 2012, p. H2211–H2219

H1594

June 15, 2014

CALL FOR PAPERS

Cardiovascular and Cerebrovascular Aging—New Mechanisms and Insights

Age-related impairment of conducted dilation in human coronary arterioles

A. Feher, Z. Broskova, and Z. Bagi

H1595

SIRT3 deficiency exacerbates ischemia-reperfusion injury: implication for aged hearts

G. A. Porter, W. R. Urciuoli, P. S. Brookes, and S. M. Nadtochiy

H1602

VASCULAR BIOLOGY AND MICROCIRCULATION

ATP-binding cassette transporter Abcg2 lineage contributes to the cardiac vasculature after oxidative stress

T. J. Maher, Y. Ren, Q. Li, E. Braunlin, M. G. Garry, B. P. Sorrentino, and C. M. Martin

H1610

ENERGETICS AND METABOLISM

A-769662 potentiates the effect of other AMP-activated protein kinase activators on cardiac glucose uptake

A. D. Timmermans, M. Balteau, R. Gélinas, E. Renguet, A. Ginion, C. de Meester, K. Sakamoto, J.-L. Balligand, F. Bontemps, J.-L. Vanovershelde, S. Horman, C. Beauloye, and L. Bertrand

H1619

SIGNALING AND STRESS RESPONSE

Reduction of Na/K-ATPase affects cardiac remodeling and increases c-kit cell abundance in partial nephrectomized mice

C. A. Drummond, M. Sayed, K. L. Evans, H. Shi, X. Wang, S. T. Haller, J. Liu, C. J. Cooper, Z. Xie, J. I. Shapiro, and J. Tian

H1631

CARDIAC EXCITATION AND CONTRACTION

Mechano-electrical coupling as framework for understanding functional remodeling during LBBB and CRT

N. H. L. Kuijpers, E. Hermeling, J. Lumens, H. M. M. ten Eikelder, T. Delhaas, and F. W. Prinzen

H1644

Sensor spacing affects the tissue impedance spectra of rabbit ventricular epicardium

C. M. K. Waits, R. C. Barr, and A. E. Pollard

H1660

INTEGRATIVE CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY

- Manipulation of central blood volume and implications for respiratory control function
T. Miyamoto, D. M. Bailey, H. Nakahara, S. Ueda, M. Inagaki, and S. Ogoh H1669
- The presence of the NOS3 gene polymorphism for intron 4 mitigates the beneficial effects of exercise training on ambulatory blood pressure monitoring in adults
C. H. Sponton, R. Esposti, C. M. Rodovalho, M. J. Ferreira, A. P. Jarrete, C. P. Anaruma, M. Bacci Jr., and A. Zanesco H1679
- Endostatin and kidney fibrosis in aging: a case for antagonistic pleiotropy?
C. H. S. Lin, J. Chen, B. Ziman, S. Marshall, J. Maizel, and M. S. Goligorsky H1692
- Prevention of export of anoxia/reoxygenation injury from ischemic to nonischemic cardiomyocytes via inhibition of endocytosis
M. Khaidakov, F. Mercanti, X. Wang, Z. Ding, Y. Dai, F. Romeo, T. Sawamura, and J. L. Mehta H1700

RAPID REPORTS

- High-throughput measurement of gap junctional intercellular communication
J. Liu, V. Siragam, J. Chen, M. D. Fridman, R. M. Hamilton, and Y. Sun H1708
- A novel adipocytokine, omentin, inhibits platelet-derived growth factor-BB-induced vascular smooth muscle cell migration through antioxidative mechanism
K. Kazama, M. Okada, and H. Yamawaki H1714

American Journal of Physiology- Regulatory, Integrative and Comparative Physiology

June 1, 2014

REVIEW

- Cerebral vascular regulation and brain injury in preterm infants
N. Brew, D. Walker, and F. Y. Wong R773

TRANSLATIONAL PHYSIOLOGY

- Sustained sympathetic nervous system support of arterial blood pressure during repeated brief umbilical cord occlusions in near-term fetal sheep
R. Galinsky, E. C. Jensen, L. Bennet, C. J. Mitchell, E. R. Gunn, G. Wassink, M. Fraser, J. A. Westgate, and A. J. Gunn R787

RESEARCH

NEURAL CONTROL

- Coping with dehydration: sympathetic activation and regulation of glutamatergic transmission in the hypothalamic PVN
M. E. Bardgett, Q.-H. Chen, Q. Guo, A. S. Calderon, M. A. Andrade, and G. M. Toney R804
- HIV-1-Tat excites cardiac parasympathetic neurons of nucleus ambiguus and triggers prolonged bradycardia in conscious rats
E. Brailoiu, E. Deliu, R. A. Sporici, K. Benamar, and G. C. Brailoiu R814

PHYSICAL ACTIVITY AND INACTIVITY

- Chronic binge alcohol consumption alters myogenic gene expression and reduces in vitro myogenic differentiation potential of myoblasts from rhesus macaques
L. Simon, N. LeCapitaine, P. Berner, C. V. Stouwe, J. C. Mussell, T. Allerton, S. D. Primeaux, J. Dufour, S. Nelson, G. J. Bagby, W. Cefalu, and P. E. Molina R837
- Myosin heavy-chain isoforms in the flight and leg muscles of hummingbirds and zebra finches
B. P. Velten and K. C. Welch, Jr. R845

OBESITY, DIABETES AND ENERGY HOMEOSTASIS

- An acute method to test leptin responsiveness in rats
B. N. Desai and R. B. S. Harris R852

Interleukin-6 contributes to early fasting-induced free fatty acid mobilization in mice
*S. Wueest, F. Item, C. N. Boyle, P. Jirkof, N. Cesarovic, H. Ellingsgaard,
M. Böni-Schnetzler, K. Timper, M. Arras, M. Y. Donath, T. A. Lutz, E. J. Schoenle,
and D. Konrad* R861

CARDIOVASCULAR AND RENAL INTEGRATION

Optical mapping of the electrical activity of isolated adult zebrafish hearts: acute effects of temperature
*E. Lin, A. Ribeiro, W. Ding, L. Hove-Madsen, M. V. Sarunic, M. F. Beg,
and G. F. Tibbits* R823

HORMONES, REPRODUCTION AND DEVELOPMENT

Methodological differences account for inconsistencies in reported free VEGF concentrations in pregnant rats
*T. L. Weissgerber, A. McConico, B. E. Knudsen, K. A. Butters, S. R. Hayman,
W. M. White, N. Milic, V. M. Miller, and V. D. Garovic* R796

An acute method to test leptin responsiveness in rats
B. N. Desai and R. B. S. Harris R852

June 15, 2014

REVIEW

Bladder sensory physiology: neuroactive compounds and receptors, sensory transducers, and target-derived growth factors as targets to improve function
E. J. Gonzalez, L. Merrill, and M. A. Vizzard R869

TRANSLATIONAL PHYSIOLOGY

Lingual lipase activity in the orosensory detection of fat by humans
B. V. Kulkarni and R. D. Mattes R879

RESEARCH

NEURAL CONTROL

Short and long sympathetic-sensory feedback loops in white fat
V. Ryu and T. J. Bartness R886

CNS neuroplasticity and salt-sensitive hypertension induced by prior treatment with subpressor doses of ANG II or aldosterone
S. C. Clayton, Z. Zhang, T. Beltz, B. Xue, and A. K. Johnson R908

Marinobufagenin regulates permeability and gene expression of brain endothelial cells
*N. H. Ing, L. Berghman, D. Abi-Ghanem, K. Abbas, A. Kaushik, P. K. Riggs,
and J. B. Puschett* R918

Amygdala mediates respiratory responses to sudden arousing stimuli and to restraint stress in rats
E. Bondarenko, D. M. Hodgson, and E. Nalivaiko R951

FLUID AND ELECTROLYTE HOMEOSTASIS

Functional adaptation of bovine mesenteric lymphatic vessels to mesenteric venous hypertension
*C. M. Quick, J. C. Criscione, A. Kotiya, R. M. Dongaonkar, J. Hardy, E. Wilson,
A. A. Gashev, G. A. Laine, and R. H. Stewart* R901

CNS neuroplasticity and salt-sensitive hypertension induced by prior treatment with subpressor doses of ANG II or aldosterone
S. C. Clayton, Z. Zhang, T. Beltz, B. Xue, and A. K. Johnson R908

PHYSICAL ACTIVITY AND INACTIVITY

Overexpression of TRB3 in muscle alters muscle fiber type and improves exercise capacity in mice
*D. An, S. J. Lessard, T. Toyoda, M.-Y. Lee, H.-J. Koh, L. Qi, M. F. Hirshman,
and L. J. Goodyear* R925

OBESITY, DIABETES AND ENERGY HOMEOSTASIS

Short and long sympathetic-sensory feedback loops in white fat
V. Ryu and T. J. Bartness R886

- Overexpression of TRB3 in muscle alters muscle fiber type and improves exercise capacity in mice
D. An, S. J. Lessard, T. Toyoda, M.-Y. Lee, H.-J. Koh, L. Qi, M. F. Hirshman, and L. J. Goodyear R925
- Exercise training enhances insulin-stimulated nerve arterial vasodilation in rats with insulin-treated experimental diabetes
T. D. O'Leary, M. W. McDonald, K. N. Grisé, A. Dey, M. D. Allen, P. J. Medeiros, J. C. Lacefield, D. N. Jackson, C. L. Rice, C. W. J. Melling, E. G. Noble, and J. K. Shoemaker R941

CARDIOVASCULAR AND RENAL INTEGRATION

- The role of active muscle mass in determining the magnitude of peripheral fatigue during dynamic exercise
M. J. Rossman, R. S. Garten, M. Venturelli, M. Amann, and R. S. Richardson R934
- Exercise training enhances insulin-stimulated nerve arterial vasodilation in rats with insulin-treated experimental diabetes
T. D. O'Leary, M. W. McDonald, K. N. Grisé, A. Dey, M. D. Allen, P. J. Medeiros, J. C. Lacefield, D. N. Jackson, C. L. Rice, C. W. J. Melling, E. G. Noble, and J. K. Shoemaker R941

RESPIRATION

- Amygdala mediates respiratory responses to sudden arousing stimuli and to restraint stress in rats
E. Bondarenko, D. M. Hodgson, and E. Nalivaiko R951

HORMONES, REPRODUCTION AND DEVELOPMENT

- Marinobufagenin regulates permeability and gene expression of brain endothelial cells
N. H. Ing, L. Berghman, D. Abi-Ghanem, K. Abbas, A. Kaushik, P. K. Riggs, and J. B. Puschett R918

American Journal of Physiology- Renal Physiology

June 1, 2014

REVIEW

- Urinary extracellular vesicles and the kidney: biomarkers and beyond
M. Salih, R. Zietse, and E. J. Hoorn F1251
-
- Modulation of angiotensin II-induced inflammatory cytokines by the Epac1-Rap1A-NHE3 pathway: implications in renal tubular pathobiology
P. Xie, D. Joladarashi, P. Dudeja, L. Sun, and Y. S. Kanwar F1260
- Active removal of inorganic phosphate from cerebrospinal fluid by the choroid plexus
P. M. Guerreiro, A. M. Bataille, S. L. Parker, and J. L. Renfro F1275
- Regulation of macromolecular modulators of urinary stone formation by reactive oxygen species: transcriptional study in an animal model of hyperoxaluria
S. R. Khan, S. Joshi, W. Wang, and A. B. Peck F1285
- Spontaneous voiding by mice reveals strain-specific lower urinary tract function to be a quantitative genetic trait
W. Yu, C. Ackert-Bicknell, J. D. Larigakis, B. MacIver, W. D. Steers, G. A. Churchill, W. G. Hill, and M. L. Zeidel F1296
- Akt and RhoA activation in response to high glucose require caveolin-1 phosphorylation in mesangial cells
S.-Z. Wu, F.-F. Peng, J.-L. Li, F. Ye, S.-Q. Lei, and B.-F. Zhang F1308
- OMA1 mediates OPA1 proteolysis and mitochondrial fragmentation in experimental models of ischemic kidney injury
X. Xiao, Y. Hu, P. M. Quirós, Q. Wei, C. López-Otín, and Z. Dong F1318
- Albumin inhibits the insulin-mediated ACE2 increase in cultured podocytes
E. Márquez, M. Riera, J. Pascual, and M. J. Soler F1327
- Role of the TNF pathway in the progression of diabetic nephropathy in KK-A^y mice
K. Omote, T. Gohda, M. Murakoshi, Y. Sasaki, S. Kazuno, T. Fujimura, M. Ishizaka, Y. Sonoda, and Y. Tomino F1335

Wld ^S ameliorates renal injury in a type 1 diabetic mouse model <i>S. Zhu, Y. Yang, J. Hu, L. Qian, Y. Jiang, X. Li, Q. Yang, H. Bai, and Q. Chen</i>	F1348
Theoretical assessment of renal autoregulatory mechanisms <i>I. Sgouralis and A. T. Layton</i>	F1357
Mpv17 in mitochondria protects podocytes against mitochondrial dysfunction and apoptosis in vivo and in vitro <i>G. Casalena, S. Krick, I. Daehn, L. Yu, W. Ju, S. Shi, S. Tsai, V. D'Agati, M. Lindenmeyer, C. D. Cohen, D. Schlondorff, and E. P. Bottinger</i>	F1372

INNOVATIVE METHODOLOGY

MRI-based glomerular morphology and pathology in whole human kidneys <i>S. C. Beeman, L. A. Cullen-McEwen, V. G. Puelles, M. Zhang, T. Wu, E. J. Baldelomar, J. Dowling, J. R. Charlton, M. S. Forbes, A. Ng, Q. Wu, J. A. Armitage, G. F. Egan, J. F. Bertram, and K. M. Bennett</i>	F1381
--	-------

CORRIGENDA

Corrigendum for Haiying L. et al., Volume 295, p. F942–F949	F1391
Corrigendum for Haiping W. et al., Volume 298, p. F754–F762	F1392

June 15, 2014

CALL FOR PAPERS

Pathophysiology of Acute Kidney Injury

Hemodialysis restored iron distribution that was sequestered in the spleen by bilateral nephrectomy <i>A. Kida, T. Kuragano, M. Furuta, Y. Otaki, Y. Hasuike, S. Matsuda, N. Akaike, Y. Kokuba, and T. Nakanishi</i>	F1393
Mesangial cell $\alpha_v\beta_3$ -integrin regulates glomerular capillary integrity and repair <i>S. Lakhe-Reddy, V. Li, T. D. Arnold, S. Khan, and J. R. Schelling</i>	F1400
Dysfunction of the PGC-1 α -mitochondria axis confers adriamycin-induced podocyte injury <i>C. Zhu, X. Xuan, R. Che, G. Ding, M. Zhao, M. Bai, Z. Jia, S. Huang, and A. Zhang</i>	F1410
Phosphate overload directly induces systemic inflammation and malnutrition as well as vascular calcification in uremia <i>S. Yamada, M. Tokumoto, N. Tatsumoto, M. Taniguchi, H. Noguchi, T. Nakano, K. Masutani, H. Ooboshi, K. Tsuruya, and T. Kitazono</i>	F1418
Proteomic identification of early changes in the renal cytoskeleton in obstructive uropathy <i>L. Stødkilde, J. Palmfeldt, L. Nilsson, I. Carlsen, Y. Wang, R. Nørregaard, and J. Frøkiær</i>	F1429
Phosphodiesterase 5 inhibition ameliorates angiotensin II-induced podocyte dysmotility via the protein kinase G-mediated downregulation of TRPC6 activity <i>G. Hall, J. Rowell, F. Farinelli, R. A. Gbadegesin, P. Lavin, G. Wu, A. Homstad, A. Malone, T. Lindsey, R. Jiang, R. Spurney, G. F. Tomaselli, D. A. Kass, and M. P. Winn</i>	F1442
Recruitment and subsequent proliferation of bone marrow-derived cells in the postischemic kidney are important to the progression of fibrosis <i>H.-S. Jang, J. I. Kim, S. J. Han, and K. M. Park</i>	F1451
Neutral aminoaciduria in cystathionine β -synthase-deficient mice, an animal model of homocystinuria <i>N. Akahoshi, S. Kamata, M. Kubota, T. Hishiki, Y. Nagahata, T. Matsuura, C. Yamazaki, Y. Yoshida, H. Yamada, Y. Ishizaki, M. Suematsu, T. Kasahara, and I. Ishii</i>	F1462
LIM homeobox transcription factor 1B expression affects renal interstitial fibrosis and apoptosis in unilateral ureteral obstructed rats <i>T.-B. Zhou, C. Ou, Y.-H. Qin, F.-Y. Lei, W.-F. Huang, and G. P. C. Drummen</i>	F1477
Natriuretic peptides buffer renin-dependent hypertension <i>T. Demerath, J. Staffel, A. Schreiber, D. Valletta, and F. Schweda</i>	F1489
NADPH oxidase-derived reactive oxygen species contribute to impaired cutaneous microvascular function in chronic kidney disease <i>J. J. DuPont, M. G. Ramick, W. B. Farquhar, R. R. Townsend, and D. G. Edwards</i>	F1499

- Modulation of NCC activity by low and high K⁺ intake: insights into the signaling pathways involved
M. Castañeda-Bueno, L. G. Cervantes-Perez, L. Rojas-Vega, I. Arroyo-Garza, N. Vázquez, E. Moreno, and G. Gamba F1507
- Competitive inhibition of SGLT2 by tofogliflozin or phlorizin induces urinary glucose excretion through extending splay in cynomolgus monkeys
T. Nagata, M. Suzuki, M. Fukazawa, K. Honda, M. Yamane, A. Yoshida, H. Azabu, H. Kitamura, N. Toyota, Y. Suzuki, and Y. Kawabe F1520
- Individuality of the plasma sodium concentration
Z. Zhang, J. Duckart, C. G. Slatore, Y. Fu, A. F. Petrik, M. L. Thorp, and D. M. Cohen F1534