

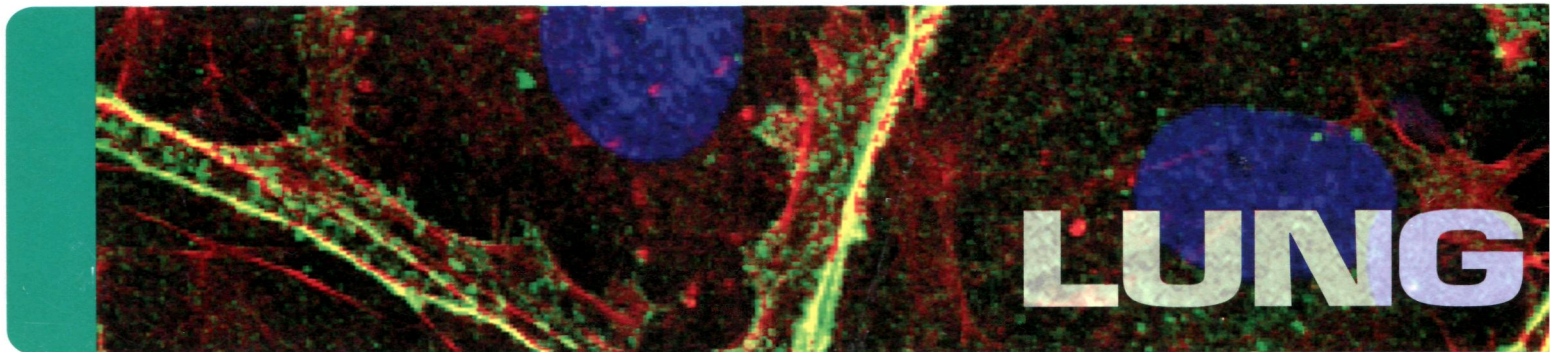
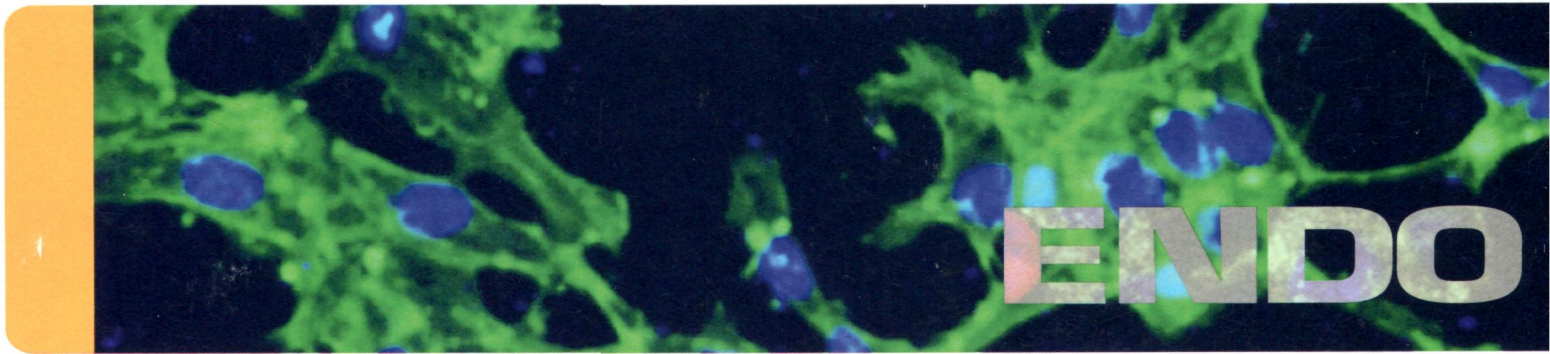
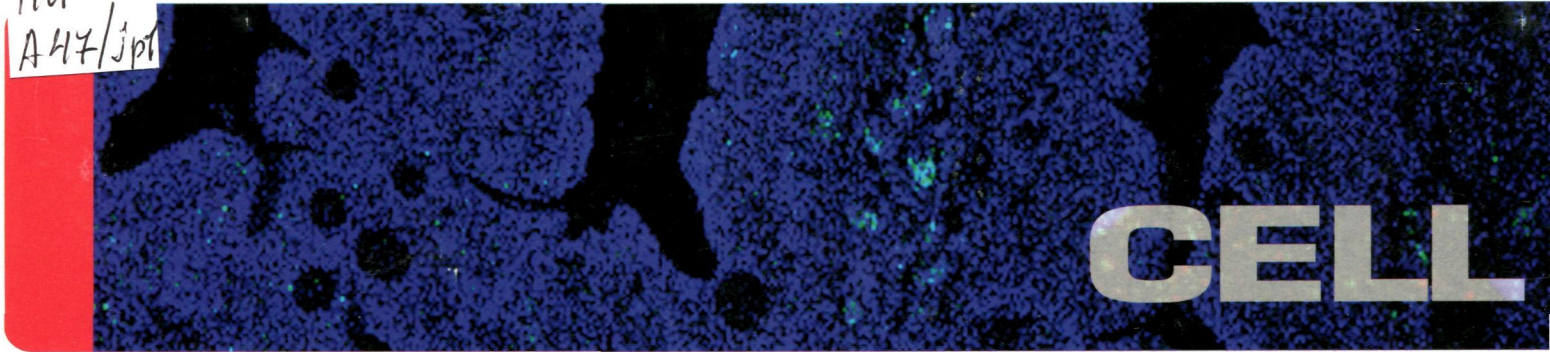
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1 of 2

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complete contents are listed below.

American Journal of Physiology- Cell Physiology

October 1, 2013

EDITORIAL

AJP-Cell Physiology begins a Theme series on Evolution and Cell Physiology
J. S. Torday and P. A. Insel C681

THEMES

Evolution and Cell Physiology. 1. Cell signaling is all of biology
J. S. Torday C682

EDITORIAL FOCUS

Serotonin receptors take the TRiPV4 highway in chronic hypoxic pulmonary hypertension. Focus on "TRPV4 channel contributes to serotonin-induced pulmonary vasoconstriction and the enhanced vascular reactivity in chronic hypoxic pulmonary hypertension"
S. Earley and N. Leblanc C690

CALL FOR PAPERS

Stem Cell Physiology and Pathophysiology

Diabetes impairs the interactions between long-term hematopoietic stem cells and osteopontin-positive cells in the endosteal niche of mouse bone marrow
H. Chiba, K. Ataka, K. Iba, K. Nagaishi, T. Yamashita, and M. Fujimiya C693

TRPV4 channel contributes to serotonin-induced pulmonary vasoconstriction and the enhanced vascular reactivity in chronic hypoxic pulmonary hypertension
Y. Xia, Z. Fu, J. Hu, C. Huang, O. Paudel, S. Cai, W. Liedtke, and J. S. K. Sham C704

SLC4A11 is an EIPA-sensitive Na⁺ permeable pH_i regulator
D. G. Ogando, S. S. Jalimarada, W. Zhang, E. N. Vithana, and J. A. Bonanno C716

Age-related changes in the features of porcine adult stem cells isolated from adipose tissue and skeletal muscle
M.-H. Perruchot, L. Lefaucheur, C. Barreau, L. Casteilla, and I. Louveau C728

Enhanced adenosine A_{2b} receptor signaling facilitates stimulus-induced catecholamine secretion in chronically hypoxic carotid body type I cells
S. Livermore and C. A. Nurse C739

Real-time endocytosis imaging as a rapid assay of ligand-GPCR binding in single cells
L.-H. Zheng, C.-H. Wang, S.-J. Shang, X.-Y. Zhang, Y.-S. Wang, Q.-H. Wu, M.-Q. Hu, Z.-Y. Chai, X. Wu, H. Zheng, C. Zhang, L.-C. Wang, W. Xiong, and Z. Zhou C751

Autologous minced muscle grafts: a tissue engineering therapy for the volumetric loss of skeletal muscle
B. T. Corona, K. Garg, C. L. Ward, J. S. McDaniel, T. J. Walters, and C. R. Rathbone C761

Hsc70 negatively regulates epithelial sodium channel trafficking at multiple sites in epithelial cells

R. A. Chanoux, C. B. Shubin, A. Robay, L. Suaud, and R. C. Rubenstein

C776

October 15, 2013

THEMES

Cellular Mechanisms of Tissue Fibrosis. 5. Novel insights into liver fibrosis

A. Mallat and S. Lotersztajn

C789

EDITORIAL FOCUS

Time for T₃, T₄, rT₃? Focus on "Acute inhibition of the cystic fibrosis transmembrane conductance regulator (CFTR) Cl⁻ channel by thyroid hormones involves multiple mechanisms"

P. Fong

C800

CALL FOR PAPERS

Proteomic and Metabolomic Approaches to Cell Physiology and Pathophysiology

The human uterine smooth muscle S-nitrosoproteome fingerprint in pregnancy, labor, and preterm labor

C. Ulrich, D. R. Quilici, K. A. Schlauch, and I. L. O. Buxton

C803

Acute inhibition of the cystic fibrosis transmembrane conductance regulator (CFTR) Cl⁻ channel by thyroid hormones involves multiple mechanisms

Z. Cai, H. Li, J.-H. Chen, and D. N. Sheppard

C817

Cyclic AMP-Rap1A signaling mediates cell surface translocation of microvascular smooth muscle α_2C -adrenoceptors through the actin-binding protein filamin-2

H. K. B. Motawea, S. C. Jeyaraj, A. H. Eid, S. Mitra, N. T. Unger, A. A. E. Ahmed, N. A. Flavahan, and M. A. Chotani

C829

Regulation of large-conductance Ca²⁺-activated K⁺ channels by WNK4 kinase

Z. Wang, A. R. Subramanya, L. M. Satlin, N. M. Pastor-Soler, M. D. Carattino, and T. R. Kleyman

C846

Differential gene expression by endothelial cells under positive and negative streamwise gradients of high wall shear stress

J. M. Dolan, H. Meng, F. J. Sim, and J. Kolega

C854

Transforming growth factor- β 1 impairs CFTR-mediated anion secretion across cultured porcine vas deferens epithelial monolayer via the p38 MAPK pathway

S. Yi, F. Pierucci-Alves, and B. D. Schultz

C867

Cytokine response of primary human myotubes in an in vitro exercise model

M. Scheler, M. Irmeler, S. Lehr, S. Hartwig, H. Staiger, H. Al-Hasani, J. Beckers, M. Hrabé de Angelis, H.-U. Häring, and C. Weigert

C877

AMP-activated protein kinase mediates myogenin expression and myogenesis via histone deacetylase 5

X. Fu, J.-X. Zhao, J. Liang, M.-J. Zhu, M. Foretz, B. Viollet, and M. Du

C887

A naturally occurring truncated Cav1.2 α_1 -subunit inhibits Ca²⁺ current in A7r5 cells

R. H. Cox and S. J. Fromme

C896

LETTER TO THE EDITOR

Letter to the editor: "The origin of free glutamate in milk: a role for anionic amino acid transporters"

D. B. Shennan

C906

Reply to "Letter to the editor: 'The origin of free glutamate in milk: a role for anionic amino acid transporters'"

T. Matsumoto, A. San Gabriel, G. Wu, and H. Uneyama

C907

**American Journal of Physiology-
Endocrinology and Metabolism**

October 1, 2013

REVIEW

Role of stearoyl-CoA desaturase-1 in skeletal muscle function and metabolism

A. D. Stamatikos and C. M. Paton

E767

Dietary protein decreases exercise endurance through rapamycin-sensitive suppression of muscle mitochondria <i>M. Mitsuishi, K. Miyashita, A. Muraki, M. Tamaki, K. Tanaka, and H. Itoh</i>	E776
Adult-onset obesity induced by early life overnutrition could be reversed by moderate caloric restriction <i>H.-W. Liu, M. Srinivasan, S. Mahmood, D. J. Smiraglia, and M. S. Patel</i>	E785
APPL1 transgenic mice are protected from high-fat diet-induced cardiac dysfunction <i>M. Park, D. Wu, T. Park, C. Choi, R.-K. Li, K. K. Y. Cheng, A. Xu, and G. Sweeney</i>	E795
Slow oscillations of K _{ATP} conductance in mouse pancreatic islets provide support for electrical bursting driven by metabolic oscillations <i>J. Ren, A. Sherman, R. Bertram, P. B. Goforth, C. S. Nunemaker, C. D. Waters, and L. S. Satin</i>	E805
Androgens influence microvascular dilation in PCOS through ET-A and ET-B receptors <i>M. M. Wenner, H. S. Taylor, and N. S. Stachenfeld</i>	E818
Materno-fetal transfer of docosahexaenoic acid is impaired by gestational diabetes mellitus <i>A. Pagán, M. T. Prieto-Sánchez, J. E. Blanco-Carnero, A. Gil-Sánchez, J. J. Parrilla, H. Demmelmair, B. Koletzko, and E. Larqué</i>	E826
Long-term exposure to a high-fat diet results in the development of glucose intolerance and insulin resistance in interleukin-1 receptor I-deficient mice <i>F. C. McGillicuddy, C. M. Reynolds, O. Finucane, E. Coleman, K. A. Harford, C. Grant, D. Sergi, L. M. Williams, K. H. G. Mills, and H. M. Roche</i>	E834
The permissive role of prolactin as a regulator of luteinizing hormone action in the female mouse ovary and extragonadal tumorigenesis <i>A. Bachelot, N. Carré, O. Mialon, M. Matelot, N. Servel, P. Monget, P. Ahtiainen, I. Huhtaniemi, and N. Binart</i>	E845
Acid sphingomyelinase plays a key role in palmitic acid-amplified inflammatory signaling triggered by lipopolysaccharide at low concentrations in macrophages <i>J. Jin, X. Zhang, Z. Lu, D. M. Perry, Y. Li, S. B. Russo, L. A. Cowart, Y. A. Hannun, and Y. Huang</i>	E853
Diet reduction to requirements in obese/overfed ewes from early gestation prevents glucose/insulin dysregulation and returns fetal adiposity and organ development to control levels <i>N. Tuersunjiang, J. F. Odhiambo, N. M. Long, D. R. Shasa, P. W. Nathanielsz, and S. P. Ford</i>	E868
Whole body metabolic effects of prolonged endurance training in combination with erythropoietin treatment in humans: a randomized placebo controlled trial <i>B. Christensen, B. Nellesmann, M. S. Larsen, L. Thams, P. Sjeljacks, P. F. Vestergaard, B. M. Bibby, K. Vissing, H. Stødkilde-Jørgensen, S. B. Pedersen, N. Møller, S. Nielsen, N. Jessen, and J. O. L. Jørgensen</i>	E879
Effects of recovery sleep after one work week of mild sleep restriction on interleukin-6 and cortisol secretion and daytime sleepiness and performance <i>S. Pejovic, M. Basta, A. N. Vgontzas, I. Kritikou, M. L. Shaffer, M. Tsaousoglou, D. Stiffler, Z. Stefanakis, E. O. Bixler, and G. P. Chrousos</i>	E890
Loss of CCR5 results in glucose intolerance in diet-induced obese mice <i>A. Kennedy, C. D. Webb, A. A. Hill, M. L. Gruen, L. G. Jackson, and A. H. Hasty</i>	E897
Skeletal muscle denervation causes skeletal muscle atrophy through a pathway that involves both Gadd45a and HDAC4 <i>K. S. Bongers, D. K. Fox, S. M. Ebert, S. D. Kunkel, M. C. Dyle, S. A. Bullard, J. M. Dierdorff, and C. M. Adams</i>	E907

INNOVATIVE METHODOLOGY

Direct calorimetry identifies deficiencies in respirometry for the determination of resting metabolic rate in C57Bl/6 and FVB mice <i>C. M. L. Burnett and J. L. Grobe</i>	E916
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------

October 15, 2012

PERSPECTIVES

Arterio-venous balance studies of skeletal muscle fatty acid metabolism: what can we believe? <i>Z. Guo and M. D. Jensen</i>	E925
---------------------------------------------------------------------------------------------------------------------------------	------

Impact of embryo number and periconceptional undernutrition on factors regulating adipogenesis, lipogenesis, and metabolism in adipose tissue in the sheep fetus <i>S. Lie, J. L. Morrison, O. Williams-Wyss, S. E. Ozanne, S. Zhang, S. K. Walker, D. O. Kleemann, S. M. MacLaughlin, C. T. Roberts, and I. C. McMillen</i>	E931
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------

Direct and indirect effects of growth hormone receptor ablation on liver expression of xenobiotic metabolizing genes <i>X. Li, A. Bartke, D. E. Berryman, K. Funk, J. J. Kopchick, E. O. List, L. Sun, and R. A. Miller</i>	E942
Caveolin-1/PTRF upregulation constitutes a mechanism for mediating p53-induced cellular senescence: implications for evidence-based therapy of delayed wound healing in diabetes <i>M. S. Bitar, S. M. Abdel-Halim, and F. Al-Mulla</i>	E951
Higher activation of autophagy in skeletal muscle of mice during endurance exercise in the fasted state <i>C. Jamart, D. Naslain, H. Gilson, and M. Francaux</i>	E964
Cyclin-dependent kinase 5 modulates STAT3 and androgen receptor activation through phosphorylation of Ser ⁷²⁷ on STAT3 in prostate cancer cells <i>F.-N. Hsu, M.-C. Chen, K.-C. Lin, Y.-T. Peng, P.-C. Li, E. Lin, M.-C. Chiang, J.-T. Hsieh, and H. Lin</i>	E975
Metformin prevents liver tumorigenesis induced by high-fat diet in C57Bl/6 mice <i>K. Tajima, A. Nakamura, J. Shirakawa, Y. Togashi, K. Orime, K. Sato, H. Inoue, M. Kaji, E. Sakamoto, Y. Ito, K. Aoki, Y. Nagashima, T. Atsumi, and Y. Terauchi</i>	E987
Altered subcutaneous abdominal adipose tissue lipid synthesis in obese, insulin-resistant humans <i>D. Tuvdendorj, M. Chandalia, T. Batbayar, M. Saraf, C. Beysen, E. J. Murphy, and N. Abate</i>	E999
GCN2 regulates the CCAAT enhancer binding protein beta and hepatic gluconeogenesis <i>X. Xu, J. Hu, B. C. McGrath, and D. R. Cavener</i>	E1007
Mitochondrial and performance adaptations to exercise training in mice lacking skeletal muscle LKB1 <i>C. B. Tanner, S. R. Madsen, D. M. Hallowell, D. M. J. Goring, T. M. Moore, S. E. Hardman, M. R. Heninger, D. R. Atwood, and D. M. Thomson</i>	E1018
α -Cells are dispensable in postnatal morphogenesis and maturation of mouse pancreatic islets <i>C. Shiota, K. Prasadana, P. Guo, Y. El-Gohary, J. Wiersch, X. Xiao, F. Esni, and G. K. Gittes</i>	E1030

INNOVATIVE METHODOLOGY

A novel method for measuring intestinal and hepatic triacylglycerol kinetics <i>F. Sun, M. Stolinski, F. Shojaee-Moradie, S. Lou, Y. Ma, R. Hovorka, and A. M. Umpleby</i>	E1041
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------

CORRIGENDUM

Corrigendum for Lanza IR et al., Volume 304, June 2013, p. E1391–E1403	E1048
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American Journal of Physiology- Gastrointestinal and Liver Physiology

October 1, 2013

PHYSIOLOGY IN MEDICINE

Hydrogen sulfide-based therapeutics and gastrointestinal diseases: translating physiology to treatments <i>M. V. Chan and J. L. Wallace</i>	G467
------------------------------------------------------------------------------------------------------------------------------------------------	------

CALL FOR PAPERS Physiology and GI Cancer

Laxative treatment with polyethylene glycol decreases microbial primary bile salt dehydroxylation and lipid metabolism in the intestine of rats <i>M. Y. M. van der Wulp, M. Derrien, F. Stellaard, H. Wolters, M. Kleerebezem, J. Dekker, E. H. H. M. Rings, A. K. Groen, and H. J. Verkade</i>	G474
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------

MUCOSAL BIOLOGY

Transcellular oxalate and Cl ⁻ absorption in mouse intestine is mediated by the DRA anion exchanger Slc26a3, and DRA deletion decreases urinary oxalate <i>R. W. Freel, J. M. Whittamore, and M. Hatch</i>	G520
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------

NEUROREGULATION AND MOTILITY

- Developmental origins of colon smooth muscle dysfunction in IBS-like rats
Q. Li, J. H. Winston, and S. K. Sarna G503

LIVER AND BILIARY TRACT

- Diet-induced mouse model of fatty liver disease and nonalcoholic steatohepatitis reflecting clinical disease progression and methods of assessment
J. R. Clapper, M. D. Hendricks, G. Gu, C. Wittmer, C. S. Dolman, J. Herich, J. Athanacio, C. Villescaz, S. S. Ghosh, J. S. Heilig, C. Lowe, and J. D. Roth G483
- Leptin receptor blockade reduces intrahepatic vascular resistance and portal pressure in an experimental model of rat liver cirrhosis
M. G. Delgado, J. Gracia-Sancho, G. Marrone, A. Rodríguez-Vilarrupla, R. Deulofeu, J. G. Abraldes, J. Bosch, and J. C. García-Pagán G496
- Cysteine 96 of Ntcp is responsible for NO-mediated inhibition of taurocholate uptake
U. Ramasamy, M. S. Anwer, and C. M. Schonhoff G513

October 15, 2013

REVIEW

- Intestinal microbiota and immune function in the pathogenesis of irritable bowel syndrome
Y. Ringel and N. Maharshak G529

CALL FOR PAPERS

Intestinal Stem Cells in GI Physiology and Disease

- A multicenter study to standardize reporting and analyses of fluorescence-activated cell-sorted murine intestinal epithelial cells
S. T. Magness, B. J. Puthoff, M. A. Crissey, J. Dunn, S. J. Henning, C. Houchen, J. S. Kaddis, C. J. Kuo, L. Li, J. Lynch, M. G. Martin, R. May, J. C. Niland, B. Olack, D. Qian, M. Stelzner, J. R. Swain, F. Wang, J. Wang, X. Wang, K. Yan, J. Yu, and M. H. Wong G542

CALL FOR PAPERS

Physiology and GI Cancer

- Na⁺/Ca²⁺ exchangers regulate the migration and proliferation of human gastric myofibroblasts
L. V. Kemény, A. Schnúr, M. Czepán, Z. Rakonczay, Jr., E. Gál, J. Lonovics, G. Lázár, Z. Simonka, V. Venglovecz, J. Maléth, L. Judák, I. B. Németh, K. Szabó, J. Almássy, L. Virág, A. Geisz, L. Tiszlavicz, D. I. Yule, T. Wittmann, A. Varró, and P. Hegyi G552
- Epimorphin deletion inhibits polyposis in the *Apc^{min/+}* mouse model of colon carcinogenesis via decreased myofibroblast HGF secretion
E. A. Swietlicki, S. Bala, J. Lu, A. Shaker, G. Kularatna, M. S. Levin, and D. C. Rubin G564

MUCOSAL BIOLOGY

- Adaptive regulation of human intestinal thiamine uptake by extracellular substrate level: a role for THTR-2 transcriptional regulation
S. M. Nabokina, V. S. Subramanian, J. E. Valle, and H. M. Said G593

INFLAMMATION/IMMUNITY/MEDIATORS

- Irgm1-deficient mice exhibit Paneth cell abnormalities and increased susceptibility to acute intestinal inflammation
B. Liu, A. S. Gulati, V. Cantillana, S. C. Henry, E. A. Schmidt, X. Daniell, E. Grossniklaus, A. A. Schoenborn, R. B. Sartor, and G. A. Taylor G573
- Helicobacter hepaticus* increases intestinal injury in a rat model of necrotizing enterocolitis
K. Dvorak, C. F. Coursodon-Boydiddle, C. L. Snarrenberg, A. Kananurak, M. A. Underwood, and B. Dvorak G585

American Journal of Physiology- Lung Cellular and Molecular Physiology

October 1, 2013

PHYSIOLOGY IN MEDICINE

Protein C and acute inflammation: a clinical and biological perspective
S. C. Christiaans, B. M. Wagener, C. T. Esmon, and J. F. Pittet L455

CALL FOR PAPERS

Translational Research in Acute Lung Injury and Pulmonary Fibrosis

Functional promoter variants in sphingosine 1-phosphate receptor 3 associate with susceptibility to sepsis-associated acute respiratory distress syndrome
X. Sun, S.-F. Ma, M. S. Wade, M. Acosta-Herrera, J. Villar, M. Pino-Yanes, T. Zhou, B. Liu, P. Belvitch, J. Moitra, Y.-J. Han, R. Machado, I. Noth, V. Natarajan, S. M. Dudek, J. R. Jacobson, C. Flores, and J. G. N. Garcia L467

CALL FOR PAPERS

Bioengineering the Lung: Molecules, Materials, Matrix, Morphology, and Mechanics

Biophysical determinants of alveolar epithelial plasma membrane wounding associated with mechanical ventilation
O. Hussein, B. Walters, R. Stroetz, P. Valencia, D. McCall, and R. D. Hubmayr L478

Exhaled nitric oxide measurement to monitor pulmonary hypertension in a pneumonectomy-monocrotaline rat model
M. Strobl, C. Schreiber, A. Panzenböck, M.-P. Winter, H. Bergmeister, J. Jakowitsch, J. Mascherbauer, I. M. Lang, P. Wexberg, and D. Bonderman L485

The receptor for advanced glycation end-products supports lung tissue biomechanics
S. Al-Robaiy, B. Weber, A. Simm, C. Diez, P. Rolewska, R.-E. Silber, and B. Bartling L491

Perinatal nicotine-induced transgenerational asthma
V. K. Rehan, J. Liu, R. Sakurai, and J. S. Torday L501

Trop2 regulates motility and lamellipodia formation in cultured fetal lung fibroblasts
A. R. A. McDougall, S. B. Hooper, V. A. Zahra, T. J. Cole, C. Y. Lo, T. Doran, and M. J. Wallace L508

October 15, 2013

PERSPECTIVES

Joseph Barcroft's studies of high-altitude physiology
J. B. West L523

REVIEW

Cigarette smoke and CFTR: implications in the pathogenesis of COPD
A. Rab, S. M. Rowe, S. V. Raju, Z. Bebok, S. Matalon, and J. F. Collawn L530

Identification of dedifferentiation and redevelopment phases during postpneumonectomy lung growth
A. T. Kho, K. Liu, G. Visner, T. Martin, and F. Boudreault L542

Age-related increases in ozone-induced injury and altered pulmonary mechanics in mice with progressive lung inflammation
A. M. Groves, A. J. Gow, C. B. Massa, L. Hall, J. D. Laskin, and D. L. Laskin L555

Soluble guanylate cyclase modulates alveolarization in the newborn lung
P. R. Bachiller, K. H. Cornog, R. Kato, E. S. Buys, and J. D. Roberts, Jr. L569

Differential effects of fluticasone on extracellular matrix production by airway and parenchymal fibroblasts in severe COPD
C.-A. Brandsma, W. Timens, M. R. Jonker, B. Rutgers, J. A. Noordhoek, and D. S. Postma L582

American Journal of Physiology- Heart and Circulatory Physiology

October 1, 2013

REVIEW

- Mechanistic molecular imaging of cardiac cell therapy for ischemic heart disease
Q. Yu, W. Fan, and F. Cao H947

CALL FOR PAPERS Mitochondria in Cardiovascular Physiology and Disease

- Mitochondrial reactive oxygen species: which ROS signals cardioprotection?
A. O. Garlid, M. Jaburek, J. P. Jacobs, and K. D. Garlid H960

CALL FOR PAPERS Pathophysiology of Hypertension

- The loss of sustained Ca²⁺ signaling underlies suppressed endothelial nitric oxide production in preeclamptic pregnancies: implications for new therapy
J. Krupp, D. S. Boeldt, F.-X. Yi, M. A. Grummer, H. A. B. Anaya, D. M. Shah, and I. M. Bird H969
- Cardiac sympathetic dysfunction in the prehypertensive spontaneously hypertensive rat
J. Shanks, S. Manou-Stathopoulou, C.-J. Lu, D. Li, D. J. Paterson, and N. Herring H980

VASCULAR BIOLOGY AND MICROCIRCULATION

- Spontaneous activity in peripheral diaphragmatic lymphatic loops
A. Moriondo, E. Solari, C. Marcozzi, and D. Negrini H987

MUSCLE MECHANICS AND VENTRICULAR FUNCTION

- Assessment of wasted myocardial work: a novel method to quantify energy loss due to uncoordinated left ventricular contractions
K. Russell, M. Eriksen, L. Aaberge, N. Wilhelmsen, H. Skulstad, O. Gjesdal, T. Edvardsen, and O. A. Smiseth H996
- The decrease of cardiac chamber volumes and output during positive-pressure ventilation
K. Kyhl, K. A. Ahtarovski, K. Iversen, C. Thomsen, N. Vejlsstrup, T. Engstrøm, and P. L. Madsen H1004

SIGNALING AND STRESS RESPONSE

- p90 ribosomal S6 kinase 3 contributes to cardiac insufficiency in α -tropomyosin Glu180Gly transgenic mice
C. L. Passariello, M. Gayanilo, M. D. Kritzer, H. Thakur, Z. Cozacov, F. Rusconi, D. Wieczorek, M. Sanders, J. Li, and M. S. Kapiloff H1010

CARDIOVASCULAR NEUROHORMONAL REGULATION

- Modulation of regional dispersion of repolarization and T-peak to T-end interval by the right and left stellate ganglia (**Translational Physiology**)
M. Vaseghi, K. Yamakawa, A. Sinha, E. L. So, W. Zhou, O. A. Ajijola, R. L. Lux, M. Laks, K. Shivkumar, and A. Mahajan H1020
- Focal myocardial infarction induces global remodeling of cardiac sympathetic innervation: neural remodeling in a spatial context
O. A. Ajijola, D. Yagishita, K. J. Patel, M. Vaseghi, W. Zhou, K. Yamakawa, E. So, R. L. Lux, A. Mahajan, and K. Shivkumar H1031
- Short-term administration of progesterone and estradiol independently alter carotid-vasomotor, but not carotid-cardiac, baroreflex function in young women
V. E. Brunt, J. A. Miner, P. F. Kaplan, J. R. Halliwill, L. A. Strycker, and C. T. Minson H1041
- Endogenous ACh tonically stimulates ANP secretion in rat atria
H. Y. Kim, K. W. Cho, D. Y. Xu, D. G. Kang, and H. S. Lee H1050

Activation of angiotensin-converting enzyme 2/angiotensin-(1-7)/Mas axis attenuates the cardiac reactivity to acute emotional stress

A. M. Lima, C. H. Xavier, A. J. Ferreira, M. K. Raizada, G. Wallukat, E. P. P. Velloso, R. A. S. dos Santos, and M. A. P. Fontes

H1057

CARDIAC EXCITATION AND CONTRACTION

Inhibition of the late sodium current slows t-tubule disruption during the progression of hypertensive heart disease in the rat

G. L. Aistrup, D. K. Gupta, J. E. Kelly, M. J. O'Toole, A. Nahhas, N. Chirayil, S. Misener, L. Beussink, N. Singh, J. Ng, M. Reddy, T. Mongkolrattanothai, N. El-Bizri, S. Rajamani, J. C. Shryock, L. Belardinelli, S. J. Shah, and J. A. Wasserstrom

H1068

INTEGRATIVE CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY

Chronic baroreflex activation restores spontaneous baroreflex control and variability of heart rate in obesity-induced hypertension

R. Iliescu, I. Tudorancea, E. D. Irwin, and T. E. Lohmeier

H1080

Cardiomyocyte-specific p65 NF- κ B deletion protects the injured heart by preservation of calcium handling

X. Q. Zhang, R. Tang, L. Li, A. Szucsik, H. Javan, N. Saegusa, K. W. Spitzer, and C. H. Selzman

H1089

Termination of dobutamine infusion causes transient rebound left heart diastolic dysfunction in healthy elderly women but not in men: a cardiac magnetic resonance study

K. A. Ahtarovski, K. K. Iversen, J. T. Lønborg, P. L. Madsen, T. Engstrøm, and N. G. Vejlstrup

H1098

Serial measurement of hFABP and high-sensitivity troponin I post-PCI in STEMI: how fast and accurate can myocardial infarct size and no-reflow be predicted? (**Innovative Methodology**)

A. Uitterdijk, S. Sneep, R. W. B. van Duin, I. Krabbendam-Peters, C. Gorsse-Bakker, D. J. Duncker, W. J. van der Giessen, and H. M. M. van Beusekom

H1104

October 15, 2013

CALL FOR PAPERS

Pathophysiology of Hypertension

Improvement of vascular insulin sensitivity by downregulation of GRK2 mediates exercise-induced alleviation of hypertension in spontaneously hypertensive rats

W. Xing, Y. Li, H. Zhang, C. Mi, Z. Hou, M. J. Quon, and F. Gao

H1111

Synergistic effects of hypertension and aging on cognitive function and hippocampal expression of genes involved in β -amyloid generation and Alzheimer's disease

A. Csiszar, Z. Tucsek, P. Toth, D. Sosnowska, T. Gautam, A. Koller, F. Deak, W. E. Sonntag, and Z. Ungvari

H1120

CALL FOR PAPERS

Mitochondria in Cardiovascular Physiology and Disease

Nox2 as a potential target of mitochondrial superoxide and its role in endothelial oxidative stress

R. R. Nazarewicz, A. E. Dikalova, A. Bikineyeva, and S. I. Dikalov

H1131

VASCULAR BIOLOGY AND MICROCIRCULATION

Cathepsin G deficiency decreases complexity of atherosclerotic lesions in apolipoprotein E-deficient mice

N. Rafatian, D. Karunakaran, K. J. Rayner, F. H. H. Leenen, R. W. Milne, and S. C. Whitman

H1141

Shear stress modulates VCAM-1 expression in response to TNF- α and dietary lipids via interferon regulatory factor-1 in cultured endothelium

J. S. DeVerse, A. S. Sandhu, N. Mendoza, C. M. Edwards, C. Sun, S. I. Simon, and A. G. Passerini

H1149

Apurinic/aprimidinic endonuclease 1 maintains adhesion of endothelial progenitor cells and reduces neointima formation

A. Yamauchi, J. Kawabe, M. Kabara, M. Matsuki, A. Asanome, T. Aonuma, H. Ohta, N. Takehara, T. Kitagawa, and N. Hasebe

H1158

Quantitative optical imaging of vascular response in vivo in a model of peripheral arterial disease (**Innovative Methodology**)

*K. M. Poole, J. M. Tucker-Schwartz, W. W. Sit, A. J. Walsh, C. L. Duvall,
and M. C. Skala*

H1168

CARDIOVASCULAR NEUROHORMONAL REGULATION

Autonomic modulation of repolarization instability in patients with heart failure prone to ventricular tachycardia

*S. Nayyar, K. C. Roberts-Thomson, M. A. Hasan, T. Sullivan, J. Harrington,
P. Sanders, and M. Baumert*

H1181

CARDIAC EXCITATION AND CONTRACTION

SERCA Cys⁶⁷⁴ sulphonylation and inhibition of L-type Ca²⁺ influx contribute to cardiac dysfunction in endotoxemic mice, independent of cGMP synthesis

*I. A. Hobai, E. S. Buys, J. C. Morse, J. Edgecomb, E. H. Weiss, A. A. Armoundas,
X. Hou, A. R. Khandelwal, D. A. Siwik, P. Brouckaert, R. A. Cohen, and W. S. Colucci*

H1189

Diverse regulation of IP₃ and ryanodine receptors by pentazocine through σ_1 -receptor in cardiomyocytes

H. Tagashira, M. S. Bhuiyan, and K. Fukunaga

H1201

Outward stabilization of the voltage sensor in domain II but not domain I speeds inactivation of voltage-gated sodium channels

M. F. Sheets, T. Chen, and D. A. Hanck

H1213

INTEGRATIVE CARDIOVASCULAR PHYSIOLOGY AND PATHOPHYSIOLOGY

Aspirate from human stented native coronary arteries vs. saphenous vein grafts: more endothelin but less particulate debris (**Translational Physiology**)

P. Kleinbongard, T. Baars, S. Möhlenkamp, P. Kahlert, R. Erbel, and G. Heusch

H1222

Microvascular function in younger adults with obesity and metabolic syndrome: role of oxidative stress

*J. K. Limberg, J. W. Harrell, R. E. Johansson, M. W. Eldridge, L. T. Proctor,
J. J. Sebranek, and W. G. Schrage*

H1230

Disruption of phase synchronization between blood pressure and muscle sympathetic nerve activity in postural vasovagal syncope

C. E. Schwartz, E. Lambert, M. S. Medow, and J. M. Stewart

H1238

Peripheral δ -opioid receptors attenuate the exercise pressor reflex

A. K. Leal, K. Yamauchi, J. Kim, V. Ruiz-Velasco, and M. P. Kaufman

H1246

Endothelial cell transfusion ameliorates endothelial dysfunction in 5/6 nephrectomized rats

M. Pacurari, D. Xing, R. H. P. Hilgers, Y. Y. Guo, Z. Yang, and F. G. Hage

H1256

Mechanistic insight into prolonged electromechanical delay in dyssynchronous heart failure: a computational study

J. Constantino, Y. Hu, A. C. Lardo, and N. A. Trajanova

H1265

American Journal of Physiology- Regulatory, Integrative and Comparative Physiology

October 1, 2013

SPECIAL TOPIC The 2013 Ernest Starling Award

Role of collecting duct endothelin in control of renal function and blood pressure (**Review**)

D. E. Kohan

R659

Integration of thermal and osmotic regulation of water homeostasis: the role of TRPV channels (**Review**)

C. D. Sladek and A. K. Johnson

R669

CALL FOR PAPERS
Fetal and Neonatal Programming: Epigenetic Modifications of Phenotype 1

- Antenatal betamethasone exposure is associated with lower ANG-(1-7) and increased ACE in the CSF of adult sheep
A. C. Marshall, H. A. Shaltout, N. T. Pirro, J. C. Rose, D. I. Diz, and M. C. Chappell R679

CALL FOR PAPERS
Integrative and Translational Physiology: Inflammation and Immunity in Organ System Physiology

- Life without TTP: apparent absence of an important anti-inflammatory protein in birds
W. S. Lai, D. J. Stumpo, E. A. Kennington, A. B. Burkholder, J. M. Ward, D. L. Fargo, and P. J. Blackshear R689
- Female SHR have greater blood pressure sensitivity and renal T cell infiltration following chronic NOS inhibition than males
K. N. Brinson, A. A. Elmarakby, A. J. Tipton, G. R. Crislip, T. Yamamoto, B. Baban, and J. C. Sullivan R701
- Hypertension in an experimental model of systemic lupus erythematosus occurs independently of the renal nerves
K. W. Mathis, M. Venegas-Pont, E. R. Flynn, J. M. Williams, C. Maric-Bilkan, T. M. Dwyer, and M. J. Ryan R711

RESEARCH

NEURAL CONTROL

- The autonomic effects of cardiopulmonary decompression sickness in swine using principal dynamic mode analysis
Y. Bai, N. Selvaraj, K. Petersen, R. Mahon, W. A. Cronin, J. White, P. R. Brink, and K. H. Chon R748
- Temporal relationships of blood pressure, heart rate, baroreflex function, and body temperature change over a hibernation bout in Syrian hamsters
B. A. Horwitz, S. M. Chau, J. S. Hamilton, C. Song, J. Gorgone, M. Saenz, J. M. Horowitz, and C.-Y. Chen (陳昭吟) R759
- Hydrogen sulfide induces hypersensitivity of rat capsaicin-sensitive lung vagal neurons: role of TRPA1 receptors
C.-C. Hsu, R.-L. Lin, L.-Y. Lee, and Y. S. Lin R769
- Transient outwardly rectifying A currents are involved in the firing rate response to altered CO₂ in chemosensitive locus coeruleus neurons from neonatal rats
K.-Y. Li and R. W. Putnam R780
- Orientation within a high magnetic field determines swimming direction and laterality of c-Fos induction in mice
T. A. Houpt, B. Kwon, C. E. Houpt, B. Neth, and J. C. Smith R793
- Neuropeptide W increases mean arterial pressure as a result of behavioral arousal
A. T. Pate, G. L. C. Yosten, and W. K. Samson R804

FLUID AND ELECTROLYTE HOMEOSTASIS

- Effect of intensified training on muscle ion kinetics, fatigue development, and repeated short-term performance in endurance-trained cyclists
T. P. Gunnarsson, P. M. Christensen, M. Thomassen, L. R. Nielsen, and J. Bangsbo R811

PHYSICAL ACTIVITY AND INACTIVITY

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- Exercise training increases the expression and nuclear localization of mRNA destabilizing proteins in skeletal muscle
S. Matravadia, V. B. Martino, D. Sinclair, D. M. Mutch, and G. P. Holloway R822
- Reactive oxygen species generation is not different during isometric and lengthening contractions of mouse muscle
D. D. Sloboda and S. V. Brooks R832

OBESITY, DIABETES AND ENERGY HOMEOSTASIS

- Characterization of the development of renal injury in Type-1 diabetic Dahl salt-sensitive rats
*T. N. Slaughter, A. Paige, D. Spires, N. Kojima, P. B. Kyle, M. R. Garrett,
R. J. Roman, and J. M. Williams* R727
- Opposing actions of Per1 and Cry2 in the regulation of Per1 target gene expression in the liver and kidney
*J. Richards, S. All, G. Skopis, K.-Y. Cheng, B. Compton, N. Srialluri, L. Stow,
L. A. Jeffers, and M. L. Gumz* R735
- Exercise training increases the expression and nuclear localization of mRNA destabilizing proteins in skeletal muscle
S. Matravadia, V. B. Martino, D. Sinclair, D. M. Mutch, and G. P. Holloway R822
- Post-oral appetite stimulation by sugars and nonmetabolizable sugar analogs
S. Zukerman, K. Ackroff, and A. Sclafani R840

CARDIOVASCULAR AND RENAL INTEGRATION

- Characterization of the development of renal injury in Type-1 diabetic Dahl salt-sensitive rats
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- Transient outwardly rectifying A currents are involved in the firing rate response to altered CO₂ in chemosensitive locus coeruleus neurons from neonatal rats
K.-Y. Li and R. W. Putnam R780

HORMONES, REPRODUCTION AND DEVELOPMENT

- Prolactin promotes normal liver growth, survival, and regeneration in rodents: effects on hepatic IL-6, suppressor of cytokine signaling-3, and angiogenesis
*B. Moreno-Carranza, M. Goya-Arce, C. Vega, N. Adán, J. Triebel, F. López-Barrera,
A. Quintanar-Stéphano, N. Binart, G. Martínez de la Escalera, and C. Clapp* R720

October 15, 2013

RESEARCH

NEURAL CONTROL

- Unilateral renal denervation improves autonomic balance in conscious rabbits with chronic heart failure
A. M. Schiller, K. K. V. Haack, P. R. Pellegrino, P. L. Curry, and I. H. Zucker R886
- Alpha-adrenoceptor antagonists and chemical sympathectomy exacerbate anaphylaxis-induced hypotension, but not portal hypertension, in anesthetized rats
M. Wang, M. Tanida, T. Shibamoto, and Y. Kurata R900
- Increase in parasympathetic tone by pyridostigmine prevents ventricular dysfunction during the onset of heart failure
*R. M. Lataro, C. A. A. Silva, R. Fazan, Jr., M. A. Rossi, C. M. Prado, R. O. Godinho,
and H. C. Salgado* R908
- Leptin-sensitive neurons in the arcuate nucleus integrate activity and temperature circadian rhythms and anticipatory responses to food restriction
M. F. Wiater, A.-J. Li, T. T. Dinh, H. T. Jansen, and S. Ritter R949

FLUID AND ELECTROLYTE HOMEOSTASIS

- Nonuniform, age-related decrements in regional sweating and skin blood flow
C. J. Smith, L. M. Alexander, and W. L. Kenney R877

PHYSICAL ACTIVITY AND INACTIVITY

- Increased ventricular stiffness and decreased cardiac function in Atlantic cod (*Gadus morhua*) at high temperatures
D. A. Syme, A. K. Gamperl, G. W. Nash, and K. J. Rodnick R864
- Contribution of nitric oxide to brachial artery vasodilation during progressive handgrip exercise in the elderly
J. D. Trinity, D. W. Wray, M. A. H. Witman, G. Layec, Z. Barrett-O'Keefe, S. J. Ives, J. D. Conklin, V. Reese, and R. S. Richardson R893

OBESITY, DIABETES AND ENERGY HOMEOSTASIS

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M. F. Wiater, A.-J. Li, T. T. Dinh, H. T. Jansen, and S. Ritter R949

CARDIOVASCULAR AND RENAL INTEGRATION

- ANG II and baroreflex control of heart rate in embryonic chickens (*Gallus gallus domesticus*)
C. A. Mueller, W. W. Burggren, and D. A. Crossley II R855
- Increased ventricular stiffness and decreased cardiac function in Atlantic cod (*Gadus morhua*) at high temperatures
D. A. Syme, A. K. Gamperl, G. W. Nash, and K. J. Rodnick R864
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R. M. Lataro, C. A. A. Silva, R. Fazan, Jr., M. A. Rossi, C. M. Prado, R. O. Godinho, and H. C. Salgado R908
- Enhanced contractility in pregnancy is associated with augmented TRPC3, L-type, and T-type voltage-dependent calcium channel function in rat uterine radial artery
S. Senadheera, P. P. Bertrand, T. H. Grayson, L. Leader, M. Tare, T. V. Murphy, and S. L. Sandow R917

RESPIRATION

- Hemoglobin isoform differentiation and allosteric regulation of oxygen binding in the turtle, *Trachemys scripta*
C. Damsgaard, J. F. Storz, F. G. Hoffmann, and A. Fago R961

HORMONES, REPRODUCTION AND DEVELOPMENT

- ANG II and baroreflex control of heart rate in embryonic chickens (*Gallus gallus domesticus*)
C. A. Mueller, W. W. Burggren, and D. A. Crossley II R855
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S. Senadheera, P. P. Bertrand, T. H. Grayson, L. Leader, M. Tare, T. V. Murphy, and S. L. Sandow R917
- Inhibition of Drp1-dependent mitochondrial division impairs myogenic differentiation
B. Kim, J.-S. Kim, Y. Yoon, M. C. Santiago, M. D. Brown, and J.-Y. Park R927
- Chronic carbon monoxide inhalation during pregnancy augments uterine artery blood flow and uteroplacental vascular growth in mice
C. C. Venditti, R. Casselman, M. S. Q. Murphy, S. L. Adamson, J. G. Sled, and G. N. Smith R939

October 1, 2013

REVIEW

Novel diuretic targets

J. S. Denton, A. C. Pao, and M. Maduke

F931

**CALL FOR PAPERS
Renal Acid-Base Physiology**

AMP-activated protein kinase regulates the vacuolar H⁺-ATPase via direct phosphorylation of the A subunit (ATP6V1A) in the kidney

R. Alzamora, M. M. Al-Bataineh, W. Liu, F. Gong, H. Li, R. F. Thali, Y. Joho-Auchli, R. A. Brunisholz, L. M. Satlin, D. Neumann, K. R. Hallows, and N. M. Pastor-Soler

F943

**CALL FOR PAPERS
Chronic Kidney Disease and Fibrosis**

Complement 3 activates the renal renin-angiotensin system by induction of epithelial-to-mesenchymal transition of the nephrotubulus in mice

X. Zhou, N. Fukuda, H. Matsuda, M. Endo, X. Wang, K. Saito, T. Ueno, T. Matsumoto, K. Matsumoto, M. Soma, N. Kobayashi, and A. Nishiyama

F957

EDITORIAL FOCI

Aldosterone-dependent *trans*-activation and epigenetic derepression of ENaC: where is the balance?

A. Staruschenko

F968

Of diabetic mice and ACE2: a new biomarker of renal disease?

M. C. Chappell

F970

Beware the low HDAC11: males at risk for ischemic kidney injury

M. Mrug and P. W. Sanders

F973

Vitamin D deficiency: a nontraditional risk factor in polycystic kidney disease?

B. Reed-Gitomer

F975

Energy policy of the kidney: launch of AMPK as a novel therapeutic target

M. Nangaku

F977

A model of calcium transport along the rat nephron

M. Tournus, N. Seguin, B. Perthame, S. R. Thomas, and A. Edwards

F979

Fulvene-5 inhibition of NADPH oxidases attenuates activation of epithelial sodium channels in A6 distal nephron cells

D. Trac, B. Liu, A. C. Pao, S. V. Thomas, M. Park, C. A. Downs, H.-P. Ma, and M. N. Helms

F995

Aldosterone reprograms promoter methylation to regulate α ENaC transcription in the collecting duct

Z. Yu, Q. Kong, and B. C. Kone

F1006

IL-18 induces profibrotic renal tubular cell injury via STAT3 activation

F. Matsui, A. Rhee, K. L. Hile, H. Zhang, and K. K. Meldrum

F1014

Protective effect of zinc-N-acetylcysteine on the rat kidney during cold storage

M. Singh, D. T. Odeniyi, E. O. Apostolov, A. Savenka, T. Fite, G. W. Wangila, R. B. Walker, and A. G. Basnakian

F1022

Protective role of the endothelial isoform of nitric oxide synthase in ANG II-induced inflammatory responses in the kidney

C. Whiting, A. Castillo, M. Z. Haque, and D. S. A. Majid

F1031

Injured kidney endothelium is only marginally repopulated by cells of extrarenal origin

H. Schirutschke, R. Vogelbacher, A. Stief, S. Parmentier, C. Daniel, and C. Hugo

F1042

Albuminuria induces a proinflammatory and profibrotic response in cortical collecting ducts via the 24p3 receptor <i>E. Dizin, U. Hasler, S. Nlandu-Khodo, M. Fila, I. Roth, T. Hernandez, A. Doucet, P.-Y. Martin, E. Feraille, and S. de Seigneux</i>	F1053
CXCR4-overexpressing bone marrow-derived mesenchymal stem cells improve repair of acute kidney injury <i>N. Liu, A. Patzak, and J. Zhang</i>	F1064
Blood pressure-renal blood flow relationships in conscious angiotensin II- and phenylephrine-infused rats <i>A. J. Polichnowski, K. A. Griffin, J. Long, G. A. Williamson, and A. K. Bidani</i>	F1074

October 15, 2013

REVIEW

Primary cilia and kidney injury: current research status and future perspectives <i>S. Wang and Z. Dong</i>	F1085
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CALL FOR PAPERS

Renal Hemodynamics: Integrating with the Nephron and Beyond

Sex differences in ET-1 receptor expression and Ca ²⁺ signaling in the IMCD <i>C. Jin, J. S. Speed, K. A. Hyndman, P. M. O'Connor, and D. M. Pollock</i>	F1099
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EDITORIAL FOCI

Connecting type A intercalated cell metabolic state to V-ATPase function: phosphorylation does matter! <i>T. Rieg and J. Dominguez Rieg</i>	F1105
Proteinuria: it is time to look beyond the proximal tubule <i>E. Erkan</i>	F1107

Vitamin D increases plasma renin activity independently of plasma Ca ²⁺ via hypovolemia and β -adrenergic activity <i>D. K. Atchison, P. Harding, and W. H. Beierwaltes</i>	F1109
Whole body acid-base and fluid-electrolyte balance: a mathematical model <i>M. B. Wolf</i>	F1118
1,25(OH) ₂ D ₃ -enhanced hypercalciuria in genetic hypercalciuric stone-forming rats fed a low-calcium diet <i>K. K. Frick, J. R. Asplin, N. S. Krieger, C. D. Culbertson, D. M. Asplin, and D. A. Bushinsky</i>	F1132
Dietary salt intake modulates differential splicing of the Na-K-2Cl cotransporter NKCC2 <i>I. M. Schiebl, A. Rosenauer, V. Kattler, W. W. Minuth, M. Oppermann, and H. Castrop</i>	F1139
5-Aminolevulinic acid combined with ferrous iron induces carbon monoxide generation in mouse kidneys and protects from renal ischemia-reperfusion injury <i>J. Hou, S. Cai, Y. Kitajima, M. Fujino, H. Ito, K. Takahashi, F. Abe, T. Tanaka, Q. Ding, and X.-K. Li</i>	F1149
Bladder filling and voiding affect umbrella cell tight junction organization and function <i>M. D. Carattino, H. S. Prakasam, W. G. Ruiz, D. R. Clayton, M. McGuire, L. I. Gallo, and G. Apodaca</i>	F1158
Relaxin protects against renal ischemia-reperfusion injury <i>T. Yoshida, H. Kumagai, T. Kohsaka, and N. Ikegaya</i>	F1169
K ⁺ -induced natriuresis is preserved during Na ⁺ depletion and accompanied by inhibition of the Na ⁺ -Cl ⁻ cotransporter <i>N. van der Lubbe, A. D. Moes, L. L. Rosenbaek, S. Schoep, M. E. Meima, A. H. J. Danser, R. A. Fenton, R. Zietse, and E. J. Hoorn</i>	F1177
Angiotensin II AT ₂ receptor activation attenuates AT ₁ receptor-induced increases in the glomerular filtration of albumin: a multiphoton microscopy study <i>I. M. Schiebl and H. Castrop</i>	F1189
Rapamycin inhibition of mTORC1 reverses lithium-induced proliferation of renal collecting duct cells <i>Y. Gao, M. J. Romero-Aleshire, Q. Cai, T. J. Price, and H. L. Brooks</i>	F1201

Adenosine inhibits renin release from juxtaglomerular cells via an A₁ receptor-TRPC-mediated pathway

*M. C. Ortiz-Capisano, D. K. Atchison, P. Harding, R. D. Lasley,
and W. H. Beierwaltes*

F1209

MicroRNA-29c in urinary exosome/microvesicle as a biomarker of renal fibrosis

L.-L. Lv, Y.-H. Cao, H.-F. Ni, M. Xu, D. Liu, H. Liu, P.-S. Chen, and B.-C. Liu

F1220

Focal segmental glomerulosclerosis is associated with a *PDSS2* haplotype and, independently, with a decreased content of coenzyme Q₁₀

*D. L. Gasser, C. A. Winkler, M. Peng, P. An, L. M. McKenzie, G. D. Kirk, Y. Shi,
L. X. Xie, B. N. Marbois, C. F. Clarke, and J. B. Kopp*

F1228