PSJ Awards

20th Promotion Award of the Physiological Society of Japan for Young Scientists

AP-1 Chronic stress causes excessive aggression by altering synaptic actin dynamics in the mPFC

Hirobumi Tada[1,2], Takuya Takahashi[2]
[1]Section of Neuroendocrinology, National Center for Geriatrics and Gerontology, Japan, [2]Department of Physiology, Yokohama City University

AP-2 Characterization of the secondary auditory field in the mouse auditory cortex

Hiroaki Tsukano
Department of Neurophysiology, Brain Research Institute, Niigata University, Japan

9th Hiroshi and Aya Irisawa Memorial Promotion Award for Young Physiologists: Section of channel and transporter

AP-3 Cytoplasmic conformational changes of VSP detected by voltage clamp fluorescence spectroscopy

Akira Kawanabe, Tomoko Yonezawa, Yasushi Okamura
Graduate School of Medicine, Osaka University, Japan

AP-4 Interaction of junctophilins and the $Ca_V1.1$ is essential for the skeletal muscle contraction

Tsutomu Nakada
Department of Molecular pharmacology, Shinshu University School of Medicine, Japan

9th Hiroshi and Aya Irisawa Memorial Promotion Award for Young Physiologists: Section of heart and circulatory system

AP-5 Physiological and pathophysiological significance of TRPC3-Nox2 coupling in the heart

Takuro Numaga-Tomita[1,2,3], Tsukasa Shimauchi[4,5], Naoyuki Kitajima[4], Akiyuki Nishimura[2,4], Motohiro Nishida[1,2,3,4]
[1]Department of Creative Research, Exploratory Research Center on Life and Living Systems: ExCELLS, National Institutes of Natural Sciences, Japan, [2]National Institute for Physiological Sciences (NIPS), National Institutes of Natural Sciences, [3]School of life sciences, SOKENDAI, [4]Graduate School of Pharmaceutical Sciences, Kyushu University, [5]Graduate School of Medical Sciences, Kyushu University

9th Aya Irisawa Memorial Promotion Award for Excellence by Women Physiologists

AP–6 Microglia permit climbing fiber pruning by promoting synaptic inhibition in the developing cerebellum

Hisako Nakayama

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9th Hiroshi and Aya Irisawa Memorial Award for Excellent Papers in The Journal of Physiological Sciences

AP–7 Inhibition of ghrelin-induced feeding in rats by treatment with a novel orexin receptor antagonist

Mariko So[1,2)], Hirofumi Hashimoto[2,4)], Reiko Saito[2,3)], Yukiyo Yamamoto[3)], Yasuhito Motojima[2)], Hiromichi Ueno[2)], Satomi Sonoda[2)], Mitsuhiro Yoshimura[2)], Takashi Maruyama[2)], Koichi Kusuhara[3)], Yoichi Ueta[2)]

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AP–8 Hypotonicity-induced cell swelling activates TRPA1

Fumitaka Fujita[1,2,3)], Kunitoshi Uchida[4)], Yasunori Takayama [1,5)], Yoshiro Suzuki [1,5)], Masayuki Takaishi[1,6)], Makoto Tominaga[1,5)]

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9th Hiroshi and Aya Irisawa Memorial Award for Excellent Papers on Research in Circulation in The Journal of Physiological Sciences

AP–9 Epac activation inhibits IL-6-induced cardiac myocyte dysfunction

Huiling Jin[1)], Takayuki Fujita[1)], Meihua Jin[1,2)], Reiko Kurotani[1,3)], Yuko Hidaka[1)], Wenqian Cai[1)], Kenji Suita[1)], Rajesh Prajapati[1)], Chen Liang[1)], Yoshiki Ohnuki[4)], Yasumasa Mototani[4)], Masanari Umemura[1)], Utako Yokoyama[1)], Motohiko Sato[1,5)], Satoshi Okumura[1,4)], Yoshihiro Ishikawa[1)]

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Skeletal muscle & locomotion (1)

1P–001 Analysis of junctophilin2 knock out zebrafish

Souhei Sakata, Fumihito Ono
Department of Physiology, Division of Life Sciences, Faculty of Medicine, Osaka Medical College, Japan

1P–002 Evaluation of muscle contraction by electromyogram and sonography

Masafumi Katayama
International University of Health and Welfare, Japan

1P–003 Muscle representations in spinal motor circuitry in intact humans and an individual with SCI

Toshiki Tazoe[1)], Koichi Iwatsuki[2)], Yukio Nishimura[1)]
[1]Neural Prosthesis Project, Department of Dementia and Higher Brain Function, Tokyo Metropolitan Institute of Medical Science, Japan, [2]Senbokujinnai Hospital

1P–004 Generation of a transgenic zebrafish for monitoring murf1 expression

Genri Kawahara, Mami S Nakayashiki, Yukiko K Hayashi
Department of Pathophysiology, Tokyo Medical University, Japan

1P–005 Acetylcholinesterase inhibitor accelerates muscle differentiation in C2C12 myoblasts

Hiroshi Todaka[1)], Mikihiko Arikawa[2)], Tatsuya Noguchi[3)], Atsushi Ichikawa[1)], Takayuki Sato[1)]
[1]Dept Cardiovasc Control, Kochi Med Sch, Japan, [2]Dept Biol Sci, Fac Sci Tech, Kochi Univ, Japan, [3]Dept Med Geriatr, Kochi Med Sch, Japan

1P–006 Emerin deficiency exacerbates skeletal muscle pathology in *Lmna*$^{H222P/H222P}$ mutant mice

Eiji Wada, Megumi Kato, Kaori Yamashita, Yukiko K Hayashi
Department of Pathophysiology, Tokyo Medical University, Japan

1P–007 Cell surface flip-flop of phosphatidylserine is critical for PIEZO1-mediated myotube formation

Yuji Hara[1,2)], Masaki Tsuchiya[1)], Masaki Okuda[1)], Kotaro Hirano[1)], Seiji Takabayashi[1)], Masato Umeda[1)]
[1]Graduate School of Engineering, Kyoto University, Japan, [2]AMED, PRIME

1P–008 Role of Ror-family receptor tyrosine kinases in the skeletal muscle

Koki Kamizaki[1)], Ayano Yamamoto[1)], Ryosuke Doi[1)], Motoi Kanagawa[2)], Tatsushi Toda[2)], Akiyoshi Uezumi[3)], So-Ichiro Fukada[4)], Mitsuharu Endo[1)], Yasuhiro Minami[1)]
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1P–009 Bereitschaftspotential of the interference between attention distribution and finger movement timing

Daisuke Hirano[1,2)], Daisuke Jinnai[1,3)], Hana Nozawa[1,3)], Takamichi Taniguchi[1,3)]
[1]Graduate School of Health and Welfare Sciences, International University of Health and Welfare, Japan, [2]Department of Occupational Therapy, School of Health Sciences at

Narita, International University of Health and Welfare, [3]Department of Occupational Therapy, School of Health Sciences, International University of Health and Welfare

1P–010 Control of Keber's valve at rest, foot extension and retraction of the clam *Nodularia douglasiae*

Yoshiteru Seo[1)], Yoshie Imaizumi-Ohashi[1)], Mika Yokoi-Hayakawa[1)], Eriko Seo[2)]

[1]Department of Regulatory Physiology, Dokkyo Medical University School of Medicine, Japan, [2]Department of Marine Ecosystem Dynamics, Division of Marine Life Science, Atmosphere and Ocean Research Institute, The University of Tokyo, Japan

1P–011 Suppressive Activity of Chondroitin Sulfate on Nitric Oxide Production by Knee Synoviocytes In Vitro

Takayuki Okumo[1)], Kazuhito Asano[3)], Hideshi Ikemoto[1)], Mana Tsukada[1)], Shi-Yu Guo[1)], Koji Kanzaki[2)], Tadashi Hisamitsu[1)], Masataka Sunagawa[1)]

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1P–012 Upregulation of osteclastogenic markers and impaired bone microstructure in hypertensive rats

Wacharaporn Tiyasatkulkovit[1,3)], Worachet Promruk[2,3)], Aniwat Sawangsalee[1,3)], Sirawich Intarapanich[1,3)], Jirawan Thongbunchoo[2,3)], Kwanchit Chaimongkolnukul[4)], Kanchana Kengkoom[4)], Nattapon Panupinthu[2,3)], Narattaphol Charoenphandhu[2,3,5,6)]

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1P–013 Immature network function of the adult lumbosacral cord by loss of interferon regulatory factor 8

Itaru Yazawa[1,2)], Yuko Yoshida[4)], Ryusuke Yoshimi[3,4)], Michael J O'Donovan[2)], Keiko Ozato[4)]

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Exercise (1)

1P–014 Exercise is better than caloric restriction regarding improving fatigability in muscle of obese rats

Sintip Pattanakuhar[1)], Wissuta Sutham[2,3)], Jirapas Sripetchwandee[2,3)], Wanitchaya Minta[2,3)], Duangkamol Mantor[2,3)], Siripong Palee[2,3)], Wasana Pratchayasakul[2,3)], Nipon Chattipakorn[2,3)], Siriporn C. Chattipakorn[2,4)]

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1P–015 Effects of Hypoxia on Skeletal Muscle Molecular Adaptations to Heavy Resistance Training

Aaron Petersen[1)], Jackson Fyfe[2)], Mathew Inness[1,3)], Lewan Parker[2)], Francois Billaut[4)], Robert Aughey[1)]

[1]Institute for Health and Sport, Victoria University, Australia, [2]School of Exercise and Nutrition Sciences, Deakin University, Australia, [3]Western Bulldogs Football Club, Australia, [4]Département de Kinesiologie, Université Laval, Canada

1P–016 Enriched environment attenuates hindlimb dysfunction in neonatal white matter injury model

Naoki Tajiri[1)], Atsunori Hattori[1)], Yoshitomo Ueda[1)], Shino Ogawa[1,2)], Akimasa Ishida[1)], Takeshi Shimizu[1], Hideki Hida[1]

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1P–017 Role of dopaminergic function in septum on exercise efficiency

Tetsuya Shiuchi, Takuya Masuda, Noriyuki Shimizu, Sachiko Chikahisa, Hiroyoshi Sei

Department of Integrative Physiology, Tokushima University Graduate School, Japan

1P–018 Enhanced muscle afferent responses to mechanical/chemical stimuli in type 2 diabetic rats in vitro

Rie Ishizawa[1)], Norio Hotta[2)], Gary A Iwamoto[1)], Han-Kyul Kim[1)], Wanpen Vongpatanasin[1)], Jere H Mitchell[1)], Scott A Smith[1)], Masaki Mizuno[1)]

[1]University of Texas Southwestern Medical Center, United States, [2]Chubu University, Japan

1P–019 Sex difference in mitochondrial Ca^{2+} handling properties in mouse skeletal muscle

Daiki Watanabe, Koji Hatakeyama, Hiroaki Eshima, Ryo Ikegami, Yutaka Kano

Department of Engineering Sciences, University of Electro-communications, Japan

1P–020 Enhanced cerebro-cardiovascular responses before voluntary cycling in physically fit men

Kazumasa Manabe[1,2)], Shizue Masuki[1,2)], Koji Uchida[1)], Yu Takeda[1)], Hiroshi Nose[1,2)]

[1]Department of Sports Medical Sciences, Shinshu University Graduate School of Medicine, Japan, [2]Institute for Biomedical Sciences, Shinshu University, Japan

1P–021 Unloading-induced sarcopenia in relation to mitochondrial disorder in skeletal muscle of old rats

Hideki Yamauchi, Shigeru Takemori

Div of Phys Fitness, Dept of Mol Physiol, The Jikei Univ Sch Med, Japan

1P–022 The effect of warm/cool stimulus to forearm/hand on brachial artery blood flow during leg exercise

Yoshiyuki Fukuba[1)], Saki Namura[1)], Marina Morimoto[1)], Kohei Miura[1)], Hideaki Kashima[1)], Anna Oue[2)]

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1P-023 Timing of nutrient intake after mild exercise: effects of gastrointestinal activity in humans

Hideaki Kashima[1)], Saori Kamimura[1)], Masako Yamaoka Endo[1)], Kohei Miura[1,2)], Akira Miura[1)], Yoshiyuki Fukuba[1)]

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1P-024 Effects of continuous exercise with vocalization on the oxygen dissociation states in muscles

Hajime Arikawa[1)], Toshio Matsuoka[1)], Teppei Takahashi[2)], Tomoyoshi Terada[3)], Seiichi Era[4)]

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1P-025 The salivary 11β-HSD2 activities is beneficial for continuous strength exercises in elderly people

Miyako Mochizuki[1)], Noboru Hasegawa[2)]

[1]Kyoto Bunkyo Junior College, Japan, [2]Department of Health and Medical Sciences, Ishikawa Prefectural Nursing University, Japan

1P-026 The differential dynamics of brachial artery and forearm skin blood flows during leg cycle exercise

Kohei Miura[1)], Ayaka Kondo[2)], Yuka Kikugawa[2)], Masako Y Endo[2)], Hideaki Kashima[2)], Anna Oue[3)], Yoshiyuki Fukuba[2)]

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1P-027 Molecular hydrogen increases acetone excretion and changes lipid metabolism during exercise

Amane Hori, Ryota Masuda, Masatoshi Ichihara, Hisayoshi Ogata, Takaharu Kondo, Norio Hotta

Chubu University, Japan

1P-028 Combining Acute Exercise With Insulin Treatment increase Type 1 Diabetic Liver Antioxidant Capacity

Hei-Man Yuen, Ting-Wen Lin, Shiow-Chwen Tsai

Institute of Sports Sciences, University of Taipei, Taiwan

1P-029 Longitudinal changes of trunk skeletal muscle characteristics in Japanese elderly males and females

Noriko Ishiguro Tanaka[1)], Madoka Ogawa[1,2)], Hisashi Maeda[1,2)], Akito Yoshiko[3)], Aya Tomita[3)], Ryosuke Ando[4)], Hiroshi Akima[1)]

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1P-030 Relationship between occlusal balance and agility in Japanese elite female junior badminton players

Mutsumi Takahashi[1,2)], Yogetsu Bando[2,3)], Yoshihide Satoh[1)]

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Badminton Federation, Japan, [3]BANDO Dental Clinic, Japan

1P–031 Estimation of maximal oxygen uptake from oxygen uptake efficiency slope by leg or arm ergometer

Reizo Baba, Norio Hotta, Hisako Urai, Hisayoshi Ogata, Yukiko Okamura
College of Life and Health Sciences, Chubu University, Japan

1P–032 Effect of low-volume high-intensity interval exercise on post-exercise inhibitory control

Takeshi Sugimoto[1)], Tadashi Suga[1)], Hayato Tsukamoto[2)], Daichi Tanaka[1)], Saki Takenaka[1)], Kento Shimoho[1)], Tadao Isaka[1)], Takeshi Hashimoto[1)]
[1]Faculty of Sport and Health Science, Ritsumeikan University, Japan, [2]Faculty of Life Sciences and Education, University of South Wales

1P–033 Atrioventricular nodal function during dynamic exercise in elite endurance athletes

Makoto Takahashi[1)], Tomoko Nakamoto[1)], Shigemitsu Niihata[2)], Kanji Matsukawa[1)]
[1]Graduate School of Biomedical and Health Sciences, Hiroshima University, Japan, [2]Faculty of Welfare and Health, Fukuyamaheisei University

1P–035 The influence of aerobics dance exercise on energy intake, appetite, and mood in young women

Yuki Aikawa[1)], Yusuke Takagi[2)], Minori Horiba[3)]
[1]Tsu City College, Japan, [2]Nara University of Education, [3]Nagoya University of The Arts

1P–036 Shortening velocity of knee extensor in frog *in vivo*

Yoshiki Ishii[1)], Yuki Yamanaka[1)], Tomohito Mizuno[1)], Nobuaki Sasai[2)], Toshie Nagare[1)], Teizo Tsuchiya[3)]
[1]Faculty of Health Care Sciences, Himeji Dokkyo University, Japan, [2]Faculty of Health Science, Suzuka University of Medical Science, Japan, [3]Faculty of Science, Kobe University, Japan

1P–037 CO_2-water bath promotes a recovery from the muscle fatigue induced by high intensity exercise

Noriyuki Yamamoto[1)], Tadashi Wada[2)], Fumiko Takenoya[3)], Masaaki Hashimoto[4)]
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1P–038 How does voluntary exercise frequency affect cardiac function in dilated cardiomyopathy model mice?

Masami Sugihara[1)], Ryo Kakigi[3)], Takashi Murayama[2)], Takashi Miida[1)], Takashi Sakurai[2)], Sachio Morimoto[4)], Nagomi Kurebayashi[2)]
[1]Department of Clinical Laboratory, Juntendo University, Japan, [2]Department of Phamacology, Juntendo University, Japan, [3]Department of Physiology(II), Juntendo University, Japan, [4]Department of Health Sciences at Fukuoka, International University of Health and Welfare, Japan

1P–039 Effect of lower body positive pressure and walking on fluid turnover in human legs

Satoshi Matsuo, Felix Ojeiru Ezomo, Noriko Matsuo
Division of Adaptation Physiology, Tottori University, Japan

1P-040 Changes in weight bearing index (WBI) before and after skyrunning in Mt. Fuji

Hiroto Tsujikawa[1)], Koki Nagatsu[2)], Junichi Nagasawa[3)], Yutaka Iwaihara[2)], Shinichi Murata[2)], Shino Sasaki[1)], Koji Sugiyama[2)]

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Circulation & Respiration: Cardiac Physiology (1)

1P-041 Electrophysiological analyses of multi-ion channel blockers in hiPSC-CMs sheets with MEA system

Hiroko Izumi-Nakaseko[1,2)], Atsuhiko T Naito[1,2)], Yuko Sekino[3)], Mihoko Hagiwara-Nagasawa[1)], Ai Goto[2)], Koki Chiba[2)], Yasunari Kanda[4)], Atsushi Sugiyama[1,2)]

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1P-042 A CMOS camera depicted the excitation spread during arrhythmia in an isolated rat atrial preparation

Tetsuro Sakai

Department of Systems Physiology, University of The Ryukyus Graduate School of Medicine, Japan

1P-043 Potential link between Ca^{2+}-activated cation TRPM4 channels and I_{st} in mouse cardiac pacemaker cells

Futoshi Toyoda, Wei-Guang Ding, Hiroshi Matsuura

Department of Physiology, Shiga University of Medical Science, Japan

1P-044 Functional role of delayed rectifier K^+ current in the automaticity of pulmonary vein cardiomyocytes

Xinya Mi, Wei-Guang Ding, Yingnan Li, Hiroshi Matsuura

Department of Physiol, University of Shiga Univ. Med. Sci., Japan

1P-045 Pacemaking ion channel remodelling underlies chronic exercise-induced atrioventricular block

Shu Nakao[1,3)], Alicia D'Souza[1)], Pirtro Mesirca[2)], Tariq Trussell[1)], Min Zi[1)], Sunil JRJ Logantha[1)], Elizabeth J Cartwright[1)], Matteo E Mangoni[2)], Halina Dobrzynski[1)], Mark R Boyett[1)]

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1P-046 Cardiac Iron Overload: Impacts on Cellular Electrophysiology and Calcium Handling

Natthaphat Siri-Angkul[1,2,3)], Richard Gordan[3)], Suwakon Wongjaikam[1,2)], Nadezhda Fefelova[3)], Judith K. Gwathmey[3)], Siriporn C. Chattipakorn[1,4)], Nipon Chattipakorn[1,2)], Lai-Hua Xie[3)]

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1P-047 Species difference of the hyperpolarized-activated current in pulmonary vein cardiomyocytes

Daichi Takagi[1)], Yosuke Okamoto[1)], Takayoshi Ohba[1)], Hiroshi Yamamoto[2)], Kyoichi Ono[1)]

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1P-048 The mitochondrial Na^+-Ca^{2+} exchanger is involved in automaticity of murine sinoatrial nodal cells

Yukari Takeda, Ayako Takeuchi, Satoshi Matsuoka

Department of Integrative & Systems Physiology, Faculty of Medical Sciences, University of Fukui, Japan

1P-049 Low T-tubule density is related with vulnerability of sympathetic atrial arrhythmia

Jieun An, Ami Kim, Tong Mook Kang

Department of Physiology, Sungkyunkwan Univeristy, Korea

1P-050 Effect of Myocyte Mechanical Properties on Transmural Distribution of Stress and Energy Consumption

Shiro Kato, Kumiko Tamura, Akira Amano

Department of Bioinformatics, Graduate School of Life Science, University of Ritsumeikan, Japan

1P-051 D-galactose worsens cardiac function via aggravating mitochondrial dysfunction in obese rats

Cherry Bo-Htay[1,2,3)], Thazin Shwe[1,2,3)], Krekwit Shinlapawittayatorn[1,2,3)], Siripong Palee[1,3)], Siriporn C Chattipakorn[1,3,4)], Nipon Chattipakorn[1,2,3)]

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1P-052 Drug Effect Estimation System that Uses Cardiac Action Potential Waveforms

Maho Yamamoto[1)], Kazuki Okumura[2)], Yukiko Himeno[2)], Akira Amano[2)]

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1P-053 Acute Overstretch Causes Abrupt Inner Mitochondrial Collapsing of Rat Papillary Muscles

Naritomo Nishioka[1,2)], Yoichiro Kusakari[1)], Jun Tanihata[3)], Susumu Minamisawa[1,3)]

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1P-054 PCSK9 Inhibitor Attenuates Cardiac and Mitochondrial Dysfunction in Obese-Insulin Resistant Rats

Patchareeya Amput[1,2,3)], Siripong Palee[1,3)], Busarin Arunsak[1,2,3)], Wasana Pratchayasakul[1,2,3)], Thidarat Jaiwongkam[1,3)], Siriporn C Chattipakorn[1,3,4)], Nipon Chattipakorn[1,2,3)]

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1P–055 Evaluating the Role of Individual Types of Ca^{2+} Channels in the Sinoatrial Node Pacemaker Cell Model

Yixin Zhang[1)], Yukiko Himeno[1)], Futoshi Toyoda[2)], Akira Amano[1)], Akinori Noma[1)]

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1P–056 Experimental Autoimmune Myocarditis (EAM) Model in Nonhuman Primates

Shunya Nakayama[1,2)], Hiroshi Koie[1)], Yuki Ishii[1,2], Chungyu Pai[1,2)], Yasuyo Ito-Fujishiro[1,2)], Kiichi Kanayama[1)], Yoshiko Munesue[3)], Tadashi Sankai[2)], Yasuhiro Yasutomi[2)], Naohide Ageyama[2)]

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1P–057 Physiological role of TRPC6 upregulation in hyperglycemia-exposed mice hearts

Sayaka Oda[1,2)], Takuro Numaga-Tomita[1,2)], Akiyuki Nishimura[3)], Motohiro Nishida[1,2,3)]

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1P–058 IL-6 may have protective roles in Lmna-related cardiomyopathy

Megumi Kato[1)], Mizuyo Kojima[2)], Kaori Yamashita[1)], Eiji Wada[1)], Yukiko Hayashi[1)]

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1P–059 Sonic hedgehog signaling regulates the mammalian cardiac regenerative response

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1P–060 Analysis of Diabetic Cardiomyopathy with type 2 Diabetes Mellitus in Nonhuman Primate

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1P–061 Role of Cardiac Hormones in a Nonhuman Primate Model of Cardiac Disease

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1P–062 Activation of SIRT1 Attenuates Cardiac fibrosis via preventing Endothelial-to-Mesenchymal Transition

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1P–063 Insulin signaling deficiency is responsible for diastolic dysfunction of diabetic cardiomyopathy

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1P–064 Vitamin B1 pretreatment prevents cardiac mitochondrial morphology from ischemia/reperfusion injury

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1P–065 Regulation of Orai1 in Angiotensin II-Induced Cardiac Hypertrophy

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1P–066 Plasma Proteomic Analysis of Acute Myocardial Infarction in Young Adults

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1P–067 Angiotensin-(1-5)-mediated cardioprotection via AT2R-PI3K-Akt-eNOS pathway

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1P–068 Palmitic Acid Contributes to the Development of Ca^{2+} Oscillations in Adult Rat Cardiomyocyte

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1P–069 Insights into signaling mechanism of ANP receptor by x-ray crystallography

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1P–070 (AP-5) Physiological and pathophysiological significance of TRPC3-Nox2 coupling in the heart

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1P–071 Nuclear connectin novex-3 is essential for proliferation of hypoxic fetal cardiomyocytes

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1P–072 Effect of autonomic nervous system on early and late repolarization intervals in children

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1P–073 Pilocarpine but not Ach permeate the mouse footpads and induce perspiration, sedation and arrhythmia

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1P–074 Expression change of cytokine in principal organ during cardiopulmonary bypass

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1P–075 Irregular division of the nucleus without cytokinesis in cardiac progenitor cells of mouse heart

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1P–076 Usefulness of anti-arrhythmic drug therapy targeting cardiac adenylyl cyclase

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1P–077 Stress intensity exhibited by E-PASS score and development of atrial fibrillation

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1P–078 Initiation of the heartbeat in rat embryonic heart precedes sarcomere formation

Nobutoshi Ichise, Tatsuya Sato, Yoshinori Terashima, Mitsumasa Chiba, Hiroya Yamazaki, Syunsuke Jimbo, Noritsugu Tohse
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1P–079 Contribution of the rostroventral midbrain to movement-related cardiovascular activation

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1P–080 Mechanism of augmentation of hydrogen sulfide-induced ANP secretion in hypoxic condition

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Circulation & Respiration: Lung Physiology (1)

1P–081 In vitro generation of goblet cell hyperplasia model using iPS cells and cigarette smoking solution

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1P–082 Pulmonary Hypertension Downregulated Mitochondria Associated Membrane Tethering Proteins In Rat

Shunsuke Baba, Satoko Shinjo, Yoshitaka Fujimoto, Mariko Okada, Toru Akaike, Yoichiro Kusakari, Susumu Minamisawa
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1P–083 NF- κB-mediated upregulation of miR-335-3p contributes to the induction of hypoxic PAH in mice

Xiaofang Fan, Junming Fan, Hui Guang, Xiaoqiong Shan, Yongyu Wang, Lianggang Hu, Yongsheng Gong
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1P–084 The role of vascular smooth muscle NCX1 in the pathogenesis of pulmonary arterial hypertension

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1P-085 Inflammatory effects of menthol versus non-menthol cigarette smoke on the mouse lungs

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1P-086 Nerve growth factor contributes laryngeal airway hyperreactivity in rats with intermittent hypoxia

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1P-088 Successful cigarette smoke extract-induced emphysema model defined by histology and inflammation

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Circulation & Respiration: Vascular Physiology (1)

1P-089 Functional Role of TRPC5 in Platelets

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1P-090 Decreased expression of KATP channel in human umbilical smooth muscle during gestational diabetes

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Department of Physiology, Kangwon National University School of Medicine, Korea

1P-091 Vildagliptin induces vasodilation via SERCA pump and Kv channel activation in aortic smooth muscle

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1P-092 Withdrawn

1P-093 Roles of K^+ channels in synchronising spontaneous Ca^{2+} transients in mural cells of rectal arteriole

Retsu Mitsui, Hikaru Hashitani
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1P-094 Periodic assessment of (ET-1) and Nitric Oxide (NO) in hypertensive disorders of pregnancy (HDP)

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1P–095 L-Cysteine's carotid flow responses mapped in pre-sympathetic areas of the rat ventral medulla

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1P–096 Role of c-Abl/YAP^{Y357} in integrin α5 activation in endothelial atherogenic responses

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1P–097 Different effects of α and β_1 blockers on Beta in the elastic and muscular arteries in rabbits

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1P–098 Angiopoietin-2 is released after vascular leak onset during anaphylaxis in un- and anesthetized rats

Toshishige Shibamoto[1)], Mamoru Tanida[1)], Tao Zhang[1,2)], Wei Yang[1,3)], Yuhichi Kuda[1)], Yasutaka Kurata[1)]
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1P–099 Apolipoprotein C3-rich LDL induces endothelial dysfunction and vascular cells senescence *in vivo*

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1P–100 The Role of KLF1 in Mediating Immune Response

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1P–101 YAP promotes angiogenesis via STAT3 in endothelial cells

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1P–102 Inhibition of PRC2 Protects against Restenosis via Suppressing Trimethylation of H3K27 in SMCs

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1P–103 Gaseous components of cigarette smoke upregulate prostaglandin E2 receptor EP4 in aortic aneurysm

Taro Hiromi[1,2)], Utako Yokoyama[1)], Al Mamun[1)], Tsunehito Higashi[3)], Takahiro Horinouchi[3)], Souichi Miwa[4)], Ichiro Takeuchi[2)], Yoshihiro Ishikawa[1)]

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1P–104 Central command increases oxygenation of the non-contracting arm muscles during fine hand movement

Ryota Asahara, Kanji Matsukawa, Kei Ishii, Izumi Okamoto, Yuki Sunami, Hironobu Hamada, Tsuyoshi Kataoka, Wakana Oshita, Tae Watanabe

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1P–105 Cold stimulation for the tympanic membrane decreases heart rate

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1P–106 mGluR2/3 Agonist Suppresses Hypertension Development in SHR

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1P–107 Standard-dose gentamicin does not increase a risk of patent ductus

Toru Akaike, Ayana Kishibuchi, Susumu Minamisawa

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1P–108 Role of TRPV4 on the spontaneous electrical properties of guinea pig mesenteric lymphatic vessel

Hiromichi Takano, Hikaru Hashitani

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1P–109 Physiological evidence that mesenteric lymph has been called as white blood

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Endocrine, Reproduction & Development (1)

1P–110 Mutual interaction of orexin-A and glucagon-like peptide-1 on reflex swallowing in anesthetized rats

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1P–111 Age-dependent attenuation of hypothalamic sensitivity to thermogenic melanocortin signals

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1P–112 Intake of caffeine in the morning exhibits anti-obesity effect on mice fed with high-fat diet

Atsushi Haraguchi, Tomohiro Yamazaki, Konomi Tamura, Shuhei Sato, Shigenobu Shibata

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1P–113 Effect of suppression of oral sweet-sensing with gymnema sylvestre on food motivation in humans

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1P–114 Impact of Aerobic Exercises on Hunger, Satiety and Food Intake in Type 2 Diabetes Mellitus (T2DM)

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1P–115 Possible improvement of cognitive function by long-term dark chocolate ingestion in young subjects

Eri Sumiyoshi[1)], Kentaro Matsuzaki[1)], Naotoshi Sugimoto[3)], Yoko Tanabe[1)], Toshiko Hara[1)], Masanori Katakura[4)], Mayumi Miyamoto[2)], Seiji Mishima[5)], Osamu Shido[1)]

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1P–116 Maternal low-protein-diet alters the glucose metabolism and its intestinal mechanism of offspring

Nan Wang[1)], Ke Chen[1)], Bo Lv[2)], Hu Qiao[3)], Bo Hu[3)], Qun jian Yan[1)]

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1P–117 Importance of RANTES/CCR5 signaling in lipid oxidation and adaptive thermogenesis in mice

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1P–118 Estradiol protects decrease in energy intake under psychosocial stress in ovariectomized rats

Miho Nishimura, Sayaka Nishihara, Mariko Kawahara, Mizuho Kawakami, Naoko Nakagi, Yuki Uchida, Akira Takamata, Keiko Morimoto

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1P–119 Involvement of phosphoinositide 3-kinase in leptin signaling in sweet sensitive taste cells

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1P–120 CRF circuit involved in the regulation of food intake

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1P–121 Association between Birth weigh and some Metabolic Syndrome Parameters among Medical Students

Tasabeeh Abd Allah Alnoor[1)], Lamis Abd Algadir Kaddam[2)], Marwa Mohammed Ali [3)], Faris Jamal Altekana[4)], Humeda Suiket Humeda[5)]

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1P–122 EID1 inhibits adipogenesis through reduction of GPDH expression

Tomohiko Sato[1,2,3)], Diana Vargas[1,2)], Saki Kawano[2)], Tomomi Maeyama[2)], Amu Maruyama[2)], Kaoru Uchida[2)], Noriyuki Koibuchi[1)], Noriaki Shimokawa[1,2)]

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1P–123 Macrophage Raptor deficiency-induced lysosome dysfunction exacerbates non-alcoholic steatohepatitis

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1P–124 Capsaicinoid Nonivamide ameliorates hepatic injury on non-alcoholic fatty liver disease in rat model

Naruemon Wikan[1)], Jiraporn Tocharus[2)], Sivanan Sivasinprasasn[1)], Aphisek Kongkaew[3)], Waraluck Chaichompoo[4)], Apichart Suksamrarn[4)], Chainarong Tocharus[1)]

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1P–125 Regulation of mitochondrial respiration, energy metabolism, and obesity by neuronal Ca^{2+}-sensor-1

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1P–126 Pioglitazone ameliorates senescence related markers in visceral adipose tissue of obese mice

Masaki Kimura, Risako Ishii, Natsumi Hirano, Ryoei Uchida, Shoji Yamada, Yoshimasa Saito, Hidetsugu Saito

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1P–127 Remote ischemic preconditioning affects gluconeogenesisvia the brain-liver route

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1P–128 Systemic glucose oxidation is enhanced in acquired liver and muscle insulin receptor knockout mice

Kei Takahashi[1)], Tetsuya Yamada[2)], Takashi Sugisawa[1)], Keiko Kawata[3)], Yoichiro Asai[1)], Yuichiro Munakata[1)], Shinjiro Kodama[1)], Shojiro Sawada[1)], Junta Imai[1)], Makoto Inada[3)], Hideki Katagiri[1)]

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1P–129 CCL5 Deficiency Protect against High-fat Diet-induced Insulin Resistance

Chao-Yu Kuo, Li-Man Hung

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1P–130 The effects of insulin signaling on mouse taste bud organoid

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1P–131 Anti-hyperglycemic Effect *Gynura Procumbens* (Lour.) Merr. in *In vivo* and *In vitro* Studies

Cho Lwin Aung[1)], Fumitaka Kawakami[2)], Motoki Imai[2)], Thet Thet Lwin[3)], Ohnmar .[4)], Khin Phyu Phyu[5)], Mya Mya Thwin[1)], Hiroko Maruyama[6)]

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1P–132 Whole organism chemical screening identifies modulators of pancreatic β cell function

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1P–133 Colonic smooth muscle injury ameliorates via SIRT1 activator in STZ-Induced Diabetic Micee

Hongli Lu[1,2], Xu Huang[1], Jie Chen[2], Wenxie Xu[1]
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1P–134 Evaluation of anti-hyperglycemic efficacy of *Lactobacillus paracasei* HII01 in type 2 diabetic rat

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1P–135 White-skinned sweet potato stimulates insulin secretion from pancreatic β cells

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1P–136 Correlation between hie-sho score and progesterone, fat intake in the pre- and post-menopausal women

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1P–137 Action mechanisms of sex steroids during puberty on sexual differentiation of the brain in mice

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1P–138 Role of Sphingosine-1-phosphate on the proliferative effect of Estrogen in Human Osteoblast cells

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1P–139 Neonatal motor coordination is impaired by moderate perinatal hypothyroidism in mice

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1P–140 Mifepristone upregulates vimentin expression in human hepatic stellate cells

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1P–141 CDK5 regulates estrogen receptor and breast cancer cell growth

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1P–142 Effect of Blood Donation on Insulin Resistance and Lipid Peroxidation Product

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1P–143 Ghrelin modulates duration or number of wakefulness, NREM and REM sleep event

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1P–144 Estrogen deficiency leads to decreased water channel aquaporin 4 expression in skeletal muscle

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1P–146 The expression of the arginine vasopressin gene in the rat hypothalamus of EAE model

Kentaro Tanaka, Haruki Nishimura, Kazuaki Nishimura, Satomi Sonoda, Hiromichi Ueno, Takanori Matsuura, Reiko Saito, Mitsuhiro Yoshimura, Takashi Maruyama, Koichi Kusuhara, Yoichi Ueta
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1P–147 Effect of persistent nicotine exposure on cell differentiation in rat pituitary gland

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1P–148 Identification and functional analysis of inhibin βE (*INHBE*) as a hepatokine

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1P–149 Serum leptin adiponectin and their effects on obesity among adolescents in Colombo district Sri Lanka

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1P–151 Targeting FGF/FGFR axis ameliorates endometriosis progression

Pei-Chin Chuang[3)], Wen-Hong Su[1)], Shaw-Jenq Tsai[3)], Meng-Hsing Wu[2)]
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1P–152 Subepithelial synchronous interstitial cells drive spontaneous contractions in the seminal vesicle

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1P–153 Chronological change in concepts and symptoms of premenstrual syndrome of female university students

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1P–154 Expression and function of GLUT1-4 in mouse endometrium during the preimplantation period

Long Yun, Li Nie, Yuan Dong Zhi, Liu Min, Zhao Dan, Wang Yi Cheng, Zhang Xue Qing, Lei Yi, Wang Mei Jiao, Zhang Jin Hu, Yue Li Min
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1P–155 The dynamic expression of PTEN in the development of mouse spiral limbus

Youyi Dong, Kazuyo Kamitori
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1P–156 The effect of post-natal PFOS exposure on cerebellar development and motor coordination

Abdallah Mshaty , Asahi Haijima, Wataru Miyazaki, Noriyuki Koibuchi
Integrative Physiology Department, Gunma University, Japan

1P–157 The effects of thyroid hormone on development of hippocampal neurons in vitro

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1P–158 Perceptions towards health and care giving among elderly with loneliness, living in aged-care homes

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1P–159 Krüppel-like factor 5 regulates proliferation of neural precursor cells in the developing brain

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1P–160 Rescue of craniofacial defects with therapeutic hedgehog target chemical in ECO syndrome mouse model

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1P–161 Nicotine layer-specifically modulates synaptic plasticity in the mouse insular cortex

Hiroki Toyoda, Hajime Sato, Dong-Xu Yin, Takafumi Kato
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1P–162 Large volume electron microscopy and neural microcircuitanalysis

Yoshiyuki Kubota[1,2)], Jaerin Sohn[1,3)], Yasuo Kawaguchi[1,2)]
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1P–163 Stimulated single fiber electromyography in orbicularis oculi muscle in profenofos poisoned patients

Chanika Alahakoon[1)], Tharaka Lagath Dassanayake[1)],
Indika Bandara Gawarammana[2)], Vajira Senaka Weerasinghe[1)]
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1P–164 Conduction filtering of synaptic currents via dendrites by SK channels in cerebellar Purkinje cells

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1P–165 Bidirectional dopamine-dependent synaptic plasticity at IPSC of SNr GABA neurons in young rat slice

Takefumi Miyazaki
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1P–166 Miniature inhibitory postsynaptic current in cerebellar Purkinje cells of old dystrophic *mdx* mice

Chek Ying Tan, Sindy Lyn Ling Kueh, Stewart Ian Head,
John William Morley
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1P–167 Src kinase regulates the presynaptic transmitter release in avian cochler nucleus

Takayuki Furuta, Rei Yamada, Hiroshi Kuba
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1P–168 The mGluR1 contributes strengthening and maintenance of developing lemniscal synapses

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1P–169 Inhibition expands dynamic range of inputs in low-tuning frequency neurons in avian cochlear nucleus

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1P–170 5-HT-induced inhibition of excitatory transmission onto basal forebrain cholinergic neurons

Takuma Nishijo, Toshihiko Momiyama
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1P–171 Electrophysiological comparison between zebrin-positive and -negative Punkinje cells

Viet Tuan Nguyen-Minh, Anh Khoa Tran, Yuanjun Luo, Izumi Sugihara
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1P–172 Actin-associated tropomyosins in the dendritic spine play a role in synaptic function

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1P–173 New method to prevent the visually-evoked somatic depolarization for spine imaging

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1P–174 Fndc3b promotes climbing fiber synapse elimination partly by inhibiting STAT3 in the cerebellum

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1P–175 Distinct kinetics of synaptic vesicle replenishment mediated by synaptotagmin 1, 2 and 7

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1P–176 Synaptic clustering regulates the auditory coincidence detection in low tuning frequency neurons

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Neuroscience: Neural cell signalling

1P–177 Function of type 1 metabotropic glutamate receptors in the neonatal rat hippocampal marginal zone

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1P–178 Sodium channel-independent components of axonal afterdepolarization in hippocampal mossy fibers

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1P–179 Different taste sensitivity to salt and amiloride relates localization in the rat rNST neurons

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1P–180 Olfactory marker protein controls cAMP-throughput capacity via cAMP-gated channels in normosmia

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1P–181 Melatonin does not protect the brain against cardiac ischemia/reperfusion injury

Nattayaporn Apaijai[1,2)], Kodchanan Singhanat[1,2,3)], Thidarat Jaiwongkam[1,2)], Siriporn C Chattipakorn[1,2,4)], Nipon Chattipakorn[1,2,3)]
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1P–182 Developmental regulation of Ca channel expression in avian cochlear nucleus

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1P–183 Mechanisms underlying WNK3 kinase mediated regulation of neuronal excitability in prefrontal cortex

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1P–184 Ca^{2+} signaling and ion channel activation in embryonic neurons in the medial ganglionic eminence

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1P–185 GABA in the suprachiasmatic nucleus refines circadian behavioral rhythms

Daisuke Ono[1)], Ken-Ichi Honma[2)], Yuchio Yanagawa[3)], Akihiro Yamanaka[1)], Sato Honma[2)]
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1P–186 Calpain inhibition modulates NMDAR responsiveness to calcium increases in midbrain dopamine neurons

Shinhye Kim, Sun Hee Jeon, Hyung Seo Park, Se Hoon Kim

Department of Physiology, College of Medicine, Konyang University, Korea

1P–187 P2X7 receptor-pannexin-1 channel interaction in rat trigeminal ganglion neuron

Hiroyuki Inoue[1)], Hidetaka Kuroda[2)], Noboru Ishikawa[3)], Sadao Ohyama[4)], Asuka Higashikawa[4)], Maki Himura[4)], Hitoshi Yamamoto[3)], Yoshiyuki Shibukawa[4)], Tatsuya Ichinohe[1)]

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Neuroscience: Brain circuits

1P–188 Oxygen affects simple circuit for cold acclimation via KQT potassium channel and HADH in *C. elegans*

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1P–189 Corticocortical mechanisms underlying perceptual memory consolidation during NREM sleep

Daichi Hirai[1,2)], Daisuke Miyamoto[1)], Yasuhiro Oisi[1)], Maya Odagawa[1)], Chie Matsubara[1)], Kanako Ueno[1)], Kenta Kobayashi[3)], Akiko Hayashi-Takagi[4)], Masanori Murayama[1)]

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1P–190 Physiological and anatomical organization of cortico-striatal inputs in the basal ganglia

Hiromi Sano[1,2)], Kenta Kobayashi[2,3)], Shigeki Kato[4)], Satomi Chiken[1,2)], Kazuto Kobayashi[4)], Atsushi Nambu[1,2)]

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1P–191 Effects of acute kidney dysfunction on arginine vasopressin in transgenic rats

Hiromichi Ueno, Kenya Sanada, Kentaro Tanaka, Haruki Nishimura, Kazuaki Nishimura, Satomi Sonoda, Yoshihiro Yoshimura, Takashi Maruyama, Yutaka Otsuji, Yoichi Ueta

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1P–192 How does the cerebellum control thalamocortical activity?

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1P–193 The perioral sensory signaling pathway for complex spike generation in cerebellar Purkinje cells

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1P–194 Examination into effects of stimulation of the lateral habenula on cardiovascular responses in rats

Tri Huu Doan[1,2,4)], Yuma Sato[1,3)], Masayuki Matsumoto[1)], Tadachika Koganezawa[1)]

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1P–195 NMDA receptor-mediated activation of excitatory networks in rat interstitial nucleus of Cajal

Yasuhiko Saito

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1P–196 Topographic representation of saccade vector in frontal eye field of common marmoset

Chih-Yang Chen, Denis Matrov, Kuan-Ting Ho, Tadashi Isa

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1P–197 Measurement of multiple cerebellar mossy fiber activities by calcium imaging in mouse

Satoshi Manita[1)], Koji Ikezoe[1)], Masaaki Sato[2,3)], Masamichi Ohkura[2,3)], Junichi Nakai[2,3)], Yasunori Hayashi[4)], Kazuo Kitamura[1)]

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1P–198 Activity-dependent formation and restoration of callosal axon projections in developing neocortex

Yoshiaki Tagawa[1,2)], Yuta Tezuka[2)], Kenta Hagihara[3)], Kenichi Ohki[4)], Tomoo Hirano[2)]

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1P–199 Neural ensemble dynamics during P-waves in mice

Tomomi Tsunematsu[1,2,3,4)], Arno Onken[5)], Shuzo Sakata[1)]

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1P–200 The neural connections between the oculomotor neural integrators and the vestibulo-cerebellum

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1P–201 Serotonin regulated the fetal movement-like activity in the spinal cord

Reona Furukawa[1)], Chiaki Uchida[1)], Hirotaka Ooka[1)], Yoshiyuki Ohmura[2)],

Akiko Arata[1)]
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1P–202 Function of inhibitory neurons in the solitary nucleus in the control of respiration

Noriyuki Hama[1)], Shigefumi Yokota[2)], Masashi Fujitani[1,2)], Yasumasa Okada[3)], Naohiro Koshiya[4)], Hidehiko Koizumi[4)]
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1P–203 Information processing in brainstem bitter taste-relaying neurons

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1P–204 Inhibitory local connection of parvalbumin-expressing neurons in the rat globus pallidus

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1P–205 Effects of hypovolemia and osmotic challenge on arginine vasopressin synthesis in transgenic rats

Kenya Sanada[1,2)], Hiromichi Ueno[1,2)], Hiroki Beppu[1)], Kentaro Tanaka[1)], Haruki Nishimura[1)], Kazuaki Nishimura[1)], Satomi Sonoda[1)], Mitsuhiro Yoshimura[1)], Takashi Maruyama[1)], Yutaka Otsuji[2], Yoichi Ueta[1)]
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1P–206 Sex difference of oxytocin and vasopressin dynamics in the hypothalamus of rats

Kazuaki Nishimura[1,2)], Kenya Sanada[1)], Hiroki Beppu[1)], Haruki Nishimura[1)], Kentaro Tanaka[1)], Satomi Sonoda[1)], Hiromichi Ueno[1)], Mitsuhiro Yoshimura[1)], Takashi Maruyama[1)], Kiyoshi Yoshino[2)], Yoichi Ueta[1)]
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1P–207 Projection-specific cortico-cortical transformations in the mouse visual system

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1P–208 Presynaptic H3 heteroreceptor in nucleus accumbens mediates anxiolytic effect of histamine

Jing-Ning Zhu[1,2)], Shi-Yu Peng[1)], Bin Li[1)], Qian-Xing Zhuang[1)], Shu-Tao Xie[1)], Jian-Jun Wang[1,2)]
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1P–209 VTA neurons targeting cortical motor areas exhibit highly diffuse collateral projections

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1P–210 Phasic increase of interleukin 1 in the dorsal raphe nucleus affects inter-male aggressive behavior

Aki Takahashi[1,2,3)], Hossein Aleyasin[2)], Mihaela A Stavarache[4)], Meghan E Flanigan[2)], Caroline Menard[2)], Madeline L Pfau[2)], Georgia E Hodes[2)], Sonoko Ogawa[1)], Bruce S Mcewen[3)], Scott J Russo[2)]

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1P–211 Cerebellar integration of neocortical somatosensory signals

Misa Shimuta[1)], Izumi Sugihara[2)], Taro Ishikawa[1)]

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1P–212 Phox2b-expressing neurons in the rat reticular formation dorsal to the trigeminal motor nucleus

Shiro Nakamura[1)], Kouta Nagoya[2)], Keiko Ikeda[3)], Hiroshi Onimaru[4)], Kiyoshi Kawakami[5)], Kiyomi Nakayama[1)], Ayako Mochizuki[1)], Masanori Dantsuji[1)], Tomio Inoue[1)]

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1P–213 Neural activity underlying mismatch negativity generation in macaque temporal and frontal cortices

Yuki Suda[1)], Mariko Tada[2)], Takeshi Matsuo[3)], Keisuke Kawasaki[4)], Takafumi Suzuki[5)], Isao Hasegawa[4)], Kenji Matsumoto[1)], Kiyoto Kasai[2)], Takanori Uka[6)]

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1P–214 CRH release regulation by GABAergic projection from arcuate nucleus using chemogenetic model

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1P–215 Exploring the roles of calbindin-D28K in the medial preoptic nucleus in sexual behavior of male rats

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1P–216 ASIC1a mediates striatal synapse remodeling and procedural motor learning

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1P–218 Effects of ELF-EMF on learning and memory, anxiety-like behavior and stress oxidative in male rats

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1P–219 Ventral hippocampus inactivation facilitates the attenuation of olfactory neophobia in rats

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1P–220 Effect of Castration on Electrophysiological Properties of LMAN Neurons in Adult Male Zebra Finches

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1P–221 MMP-9 activity is required for the NMDA induced endocytosis of AMPA receptor

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1P–222 Impairment of Long-term Plasticity in Purkinje Cell with Dominant-negative Thyroid Hormone Receptor

Ayane Ninomiya[1)], Nobutake Hosoi[2)], Michifumi Kokubo[1)], Izuki Amano[1)], Asahi Haijima[1)], Wataru Miyazaki[1)], Hirokazu Hirai[2)], Noriyuki Koibuchi[1)]

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1P–223 Remote memory traces in the mouse hippocampus revealed by *Arc*-based functional labeling

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1P–224 Plasmalogens enhance spatial memory in mice by increasing the gene expression in hippocampus

Md Shamim Hossain[1)], Sanyu Sejimo[1)], Yutaka Oomura[1)], Takehiko Fujino[2)]

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1P–225 Reaction time property of visual working memory to adjacent two-lever task in standing rats

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1P–226 Gut Dysbiosis Induced Brain Pathological Changes and Cognitive Decline in HFD-Fed Rats

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1P–227 PKD1 promotes functional synapse formation coordinated with N-cadherin in hippocampus

Cen Cheng, Luo Li-Da

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1P–228 Dynamics of cell assemblies in hippocampus during memory consolidation and recall

Shogo Takamiya, Shoko Yuki, Junya Hirokawa, Yoshio Sakurai

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1P–229 Hippocampal-prefrontal plasticity with transcranial direct current stimulation

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1P–230 D-galactose induced aging aggravates hippocampal oxidative stress in obese-insulin resistant rats

Thazin Shwe[1,2,3)], Cherry Bo-Htay[1,2,3)], Wasana Pratchayasakul[1,2,3)], Nipon Chattipakorn[1,2,3)], Siriporn C Chattipakorn[1,3,4)]

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1P–231 Exercise, not calorie restriction, improves cognitive function in obese rats

Wasana Pratchayasakul[1,2,3)], Duangkamol Mantor[1,2,3)], Wanitchaya Minta[1,2,3)], Wissuta Sutham[1,2,3)], Siripong Palee[1,3)], Jirapas Sripetchwandee[1,2,3)], Sasiwan Kerdphoo[1,3)], Thidarat Jaiwongkum[1,3)], Nipon Chattipakorn[1,2,3)], Siriporn C Chattipakorn[1,3,4)]

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1P–232 Mitochondrial ATP-linked respiration in PBMCs is associated with cognition in Aged-EGAT population

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1P–233 Temporal dynamics of reward cue representation in the rat paraventricular nucleus

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1P–234 Modulation of Synaptic Plasticity in Hippocampal CA1 Region by Basolateral Amygdala

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1P–235 Depotentiation at the hippocampal CA1 synapse depends on the basal synaptic transmission

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1P–236 Population Spike-Timing-Dependent Plasticity and Synaptic Tagging and Capture in hippocampal CA1

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1P–237 p75 neurotrophin receptor regulates hippocampal associative plasticity in aging

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1P–238 Role of dopamine D_3 receptor on hyper-dopamine activity-altered novel object recognition memory

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1P–239 Role of olfactory tubercle in the weaning of neonatal mice

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1P–240 The analysis of neuropsin-dependent and-independent late associativity

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1P–241 Differentiation of spatially overlapping routes and reward zones in the monkey hippocampus

Rafael Bretas Vieira[1,2)], Jumpei Matsumoto[2)], Hiroshi Nishimaru[2)], Yusaku Takamura[2)], Etsuro Hori[2)], Taketoshi Ono[2)], Hisao Nishijo[2)]
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1P–242 (-)-Festidinol: Potential Effect on Preventing Neurodegeneration in Mice

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1P–243 Effect of agomelatine on neurogenesis in D-galactose-induced brain aging

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1P–244 Effects of 5,6,7,4'-TMF on neurodegeneration and neurogenesis in dexamethasone-induced mice

Kanet Pakdeepak[1)], Ratchanaporn Chokchaisiri[2)], Chainarong Tocharus[3)], Pranglada Jearjaroen[1)], Apichart Suksamrarn[4)], Jiraporn Tocharus[1)]
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1P–246 Salicylate-induced changes of tuning function in AI of guinea pigs observed by optical recording.

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1P–247 Laterality effects of the visual information processing on the sensorimotor gating system

Daisuke Ishii[1,2], Kotaro Takeda[3], Satoshi Yamamoto[4], Akira Noguchi[5], Kiyoshige Ishibashi[6], Kenya Tanamachi[6], Arito Yozu[1], Yutaka Kohno[1]

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1P–248 Neural substrates of action timing decisions

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1P–249 Ongoing motor information embedded in a network dynamics of primate primary somatosensory neurons

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1P–250 Chronic mild stress increases aggressive behavior in mice

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1P–251 Body ownership and agency altered by a robotic arm controlled by electromyography of elbow muscles

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1P–252 Hypoxia effect on daily activity is daily activity dependent wavelike response in mice

Satoru Masubuchi[1], Takako Yano[1], Kouji Komatsu[1], Wataru Nakamura[2], Akinobu Ota[3], Sivasundaram Karnan[3], Kosei Takeuchi[4], Yoshitaka Hosokawa[3], Takeshi Todo[5], Toshiaki Shiomi[6]

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1P–253 Recency of pattern repetition degrades monkeys' performance in pattern recognition with visual noise

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1P–255 Lower c-Fos expressions in the posterior parietal cortex during rubber tail task in Caps2 KO mice

Makoto Wada[1,2)], Masakazu Ide[1)], Takeshi Atsumi[1)], Kouji Takano[3)], Yoshitake Sano[4)], Yo Shinoda[5)], Teiichi Furuichi[4)], Kenji Kansaku[3,6,7)]

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1P–256 Interval timing of visual and auditory cues for duration discrimination in monkey prefrontal cortex

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1P–257 Haptic material perception in macaque monkeys, estimated by the material discrimination task

Minami Ito, Chisaki Hatta, Sakie Yoshida, Kanoko Katsube, Yuka Morisue, Tensei Iwata

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1P–258 Physiological effects of two types of sitting positions on the brain and autonomic nerve activities

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1P–259 Prefrontal-enriched *SLIT1* expression in primate cortex established during the postnatal development

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1P–260 Response preference to artificial and environmental natural sounds in higher auditory cortices

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1P–261 Neural properties of macaque SII bimodal neurons and their functional role for self-body awareness

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1P–262 The relation between the NMDA receptor/NO/cGMP pathway and the antidepressant-like effects of GLP-2

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1P–263 Systematic analysis on the seeding activity of familial mutant forms of α-synuclein

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1P–264 Olfactory impairment associated with left hippocampus volumes at earliest stages of schizophrenia

Yuri Masaoka[1,2], Dennis Velakoulis[2], Warrick Brewer[3], Vanessa Cropley[2], Cali Bartholomeusz[2,3], Masahiko Izumizaki[1], Patrick Mcgorry[3], Stephen J Wood[3,4], Christos Pantelis[2,5]

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1P–265 Atypical Motility Patterns in Gut Preparation of LRRK2 Knockout Mice

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1P–266 Histone Deacetylase 1, 3 as a novel target for anti-seizure drug discovery

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1P–267 Hyperventilation test with indocyanine green kinetics predicts cerebral hyperperfusion after CAS

Ichiro Nakagawa, Masashi Kotsugi, Fumihiko Nishimura, Syuichi Yamada, Yasushi Motoyama, Young Su Park, Hiroyuki Nakase

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1P–268 Electrophysiological study of epilepticus recovering effect and mechanism of JBPOS0101 using MEA

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1P–269 ROS generation, Neuronal degeneration and Neurologic dysfunction after Ischemic Stroke in Mice

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1P–270 Effect of orexin on the firing pattern of serotonergic dorsal raphe neurons

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1P–271 Would skin resistance be a novel neurophysiological marker for transcranial electrical stimulation?

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1P–272 Proposal for the classification sweating disorders based on lesion site

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1P–273 Reduced synaptic inputs in prefrontal cortex by lack of a mental disorder-related epigenetic factor

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1P–274 Common behavioral characteristics in the mice maternally exposed to different types of dioxins

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1P–275 TSPO-targeting compound ameliorates the abnormal behaviors of mice received social defeat stress

Kanako Nozaki[1)], Hikaru Ito[1)], Masahiro Ohgidani[2)], Yosuke Yamawaki[3)], Takashi Kitajima[4)], Seishi Katsumata[4)], Shigeto Yamawaki[5)], Takahiro Kato[2)], Hidenori Aizawa[1)]

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1P–276 Investigation of the effect of seaweed on the metabolic dysfunction-associated neurodegeneration

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1P–277 The expression and activation of Smad in the rat hippocampus following global cerebral ischemia

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1P–278 Abnormalities in synaptic structure and function in valproate-induced autism model marmosets

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1P–279 Neonatal dexamethasone treatment suppresses hippocampal ERa expression in adolescent female rats

Kwok-Tung Lu[1)], Hui-Fang Chiu[1)], Michael W.Y. W.Y Chan[2)], Chiung-Yin Cheng[1)], Jian-Liang Chou[3)], Jora Meng-Ju Lin[2)], Yi-Ling Yang[4)]
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1P–280 Rosmarinic acid protects against MPTP-induced toxicity and inhibits iron-induced α-syn aggregation

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1P–281 Automated, closed-loop stimulation of the medial septum alleviates temporal lobe epilepsy in rats

Yuichi Takeuchi[1,2)], Márk Harangozó[1)], Lizeth Pedraza[1)], Tamás Földi[1)], Gábor Kozák[1)], Antal Berényi[1,3)]
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1P–282 The effect of anti-arrhythmic drugs on glioma stem cells

Kohei Ofune[1)], Ryoichi Iwata[1)], Mikio Hayashi[2)], Kunikazu Yoshimura[1)], Masahiro Nonaka[1)], Akio Asai[1)]
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1P–283 TRPV4 is critical to brain edema after traumatic brain injury

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1P–284 Three-dimensional kinematical gait analysis of hindlimbs in rats with focal cerebral infarction

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1P–285 TrkB activation promotes neuronal survival via Akt-ASK1 signaling after intracerebral hemorrhage

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1P–286 Neuroprotective effects of COPPIX against dopaminergic neurons degeneration in MPTP-intoxicated mice

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1P–287 Investigation of the antidepressant agomelatine and ketamine on the synaptic plasticity in mice

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1P–288 Prenatal stress on *Gad1*-heterozygotes perturbs development of GABAergic networks affecting behavior

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1P–289 Suppression of FoxO1 by leptin enhances tyrosine hydroxylase and leads to anxiolytic behavior

Seul Ki Kim[1)], Dong Hwee Son[1)], Khanh Van Doan[2)], Dong Joo Yang[1,3)], Ji Su Sun[1)], Yun-Hee Choi[1)], Dong Min Shin[1)], Ki Woo Kim[1)]

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Neuroscience: Somatosensory & Pain (1)

1P–290 Nociceptor-mediated outcomes under hydroxyphenyl octanediamide exposure via TRPV4 modulation

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1P–291 Effects of *Toxoplasma gondii* infection on motor and non-motor symptoms of rat model of Parkinson

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1P–292 Increase of histone acetylation in the RVM in the rat with stress-induced hyperalgesia

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1P–293 Psychological stress modulates On- and Off-cell activity in the rostral ventromedial medulla

Masayuki Kurose[1)], Mana Hasegawa[2)], Yosuke Nakatani[1,3)], Shiho Shimizu[1,3)], Noritaka Fujii[2)], Yoshihide Satoh[4)], Kensuke Yamamura[1)], Keiichiro Okamoto[1)]
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1P–294 Descending orexinergic inhibition contributes to the linalool odor-induced analgesia in mice

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1P–295 Modulation of nociception via Endothelin-1 signaling in early-stage tongue cancer in rats

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1P–296 TRPV1 Expression in the TG and Spinal Trigeminal Nucleus Following Dental Pulp Inflammation

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1P–297 TRPV1 inhibition by α_2 adrenergic receptors on peripheral sensory neurons causes analgesia

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1P–299 Effects of QX314 / Flagellin (Q/F) on the conduction of the peripheral nerve in rats

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1P–300 Investigation of the antipruritic mechanisms of nalfurafine in the murine spinal cord

Kotaro Honda[1)], Mitsutoshi Tominaga[1)], Fumiya Kusube[1,2)], Fumiyuki Yamakura[3)], Hisashi Naito[4)], Yasushi Suga[5)], Kenji Takamori[1,5)]
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1P–301 Enhanced basal pain sensitivities observed in mice lacking interleukin-27

Toshiharu Yasaka[1)], Tomoko Sasaguri[2)], Toru Taguchi[3,4)], Yuzo Murata[5)], Kimiko Kobayashi[6)], Sayaka Iizasa[7)], Ei'ichi Iizasa[1)], Makoto Tsuda[8)], Naomi Hirakawa[2)], Hiromitsu Hara[1)], Hiroki Yoshida[9)]

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1P–302 Withdrawn

1P–303 Astrocytes are a novel target for treatment of the chronic pain

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1P–304 IFN-γ signaling in trigeminal spinal subnucleus caudalis is involved in orofacial neuropathic pain

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1P–305 Analgesic effects of calcitonin on radicular pain in rats

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1P–306 Effect of intraarticular hyaluronic acid in a rat monoiodoacetate-induced ankle osteoarthritis model

Shunsuke Jimbo[1,2)], Yoshinori Terashima[1,2)], Atsushi Teramoto[2)], Tatsuya Sato[1)], Izaya Ogon[2)], Nobutoshi Ichise[1)], Kota Watanabe[3)], Tsuneo Takebayashi[4)], Toshihiko Yamashita[2)], Noritsugu Tohse[1)]

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1P–307 Chronic pain model alters GABAergic synaptic transmission in the mice anterior cingulate cortex

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1P–308 NGF induces constitutive activity of TRPV1 triggering spontaneous firing in sensory neurons

Naoki Kitamura, Erika Nagami, Yumi Matsushita, Tomohiko Kayano, Izumi Shibuya

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1P–309 Characterization of mechanically-insensitive afferents and sympathetic efferents in skeletal muscle

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1P–310 An alteration of gut microbiota is associated with pain in fibromyalgia patients: a pilot study

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1P–311 In vivo two-photon imaging of thermo-sensing at the skin of living rats

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1P–312 Cisplatin-induced intraoral neuropathy due to TRPA1 sensitization in rats

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1P–313 Amitriptyline-induced suppression of spinal dorsal horn neurons in a rat model of fibromyalgia

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1P–314 Presynaptic inhibition of muscle afferent in awake, behaving monkeys: task-dependent modulation

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1P–315 Tentonin 3/TMEM150c, a mechanotransduction channel for Arterial-pressure sensing baroreceptors

Huanjun Lu[1,2)], Luan Thien Nguyen[1,2)], Hyungsup Kim[1)], Hyesu Kim[1)], Uhtaek Oh[1)]

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1P–316 The role of Cdkal1-mediated tRNA modification in peripheral neuropthy

Korin Sakakida[1,2)], Fan-Yan Wei[1)], Eiichi Araki[2)], Kazuhito Tomizawa[1)]

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1P–317 Mild traumatic brain injury induce sensitization of neurovascular system: Relevance for migraine

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1P–318 Mechanical and reactive oxygen species-sensitive TRP channels mediate tooth movement-induced pain

Aoi Morii[1,2)], Suzuro Hitomi[1)], Izumi Ujihara[1)], Misa Sago-Ito[2)], Masahiro Mizuhara[2)], Kaori Gunjigake[2)], Tatuo Kawamoto[2)], Kentaro Ono[1)]

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1P–319 Therapeutic effects of highly-residual ointments on oral ulcerative mucositis

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1P–320 mGluR5 in the dysgranular zone of primary somatosensory cortex mediates neuropathic pain in the rat

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1P–321 Thermosensory processing in excitatory and inhibitory neurons of the primary somatosensory cortex

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1P–322 Electrophysiological characterization of bradykinin B_2 receptors in rat intracardiac neurons

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1P–323 Cell type-based activation timing and order in the sequence in the preBotzinger Complex

Yoshihiko Oke[1)], Fumikazu Miwakeichi[2,3)], Yoshitaka Oku[1)], Johanness Hirrlinger[4,5)], Swen Hülsmann[6,7)]

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1P–324 Respiratory fluctuations in pupil diameter are not maintained during cognitive tasks

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1P–325 Morphology and vanilloid-susceptibility of sensory neurons innervating perirenal adipose tissue

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1P–326 The central nNOS uncoupling contributes to cardiovascular dysfunction in hypertensive rats

Wei-Zhong Wang, Xing Tan, Yang-Kai Wang, Ya-Hong Yang

Department of Physiology, Naval Medical University, China

1P–327 Involvement of PVN neurons projecting to the RVLM in sympathetic dysfunction in heart failure

Satoshi Koba, Eri Hanai, Nao Kumada, Tatsuo Watanabe

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1P–328 Responses to hypercapnia and hypoxia of Phox2b-positive cells in the ventral medulla of newborn rats

Hiroshi Onimaru[1)], Keiko Ikeda[2)], Hiroyuki Igarashi[3)], Hiromu Yawo[4)], Kazuto Kobayashi[5)], Satoru Arata[6)], Kiyoshi Kawakami[7)], Masahiko Izumizaki[1)]

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1P–329 Involvement of the lateral parabrachial nucleus in the pressor responses to pinching of the hindpaw

Hana Nozawa[1,2)], Rie Shimoju[1,3)], Takamichi Taniguchi[1,2)], Hideshi Shibata[4)], Mieko Kurosawa[1,5)]

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1P–330 Raphe-projecting oxytocinergic hypothalamic neurons stimulate brown adipose tissue thermogenesis

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1P–331 Strychnine enhances inspiratory-related calcium rise in the thoracic inspiratory interneuron

Yoshihiro Mikami, Makito Iizuka, Hiroshi Onimaru, Masahiko Izumizaki

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1P–332 Effects of feeding-promoting peptides on excitability of the superior salivatory nucleus neurons

Yoshihiro Mitoh[1)], Tadasu Sato[2)], Masako Fujita[1)], Hiroyuki Ichikawa[2)], Motoi Kobashi[1)], Ryusuke Yoshida[1)]

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1P–333 Patch-clamp recordings from CRF+ neuron in the Barrington's nucleus using CRF-VenusΔneo mice

Masahiro Kawatani[1)], Keiichi Itoi[2,3)], Katsuya Uchida[2,3)], Kenji Sakimura[4)]

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1P–334 Edible sesquiterpene alcohols suppress cytotoxic chemotherapy side effects

Young-Ho Jin, Eunhee Yang

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1P–335 Opposite effects of peripheral warming on autonomic nerve activities in the anesthetized rat

Takehito Kemuriyama[1)], Yoshiaki Sato[2)], Hokyoo Lee[3)], Takuto Nagashima[4)], Megumi Tandai-Hiruma[2)]

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1P–336 Is sympathoexcitation by PVN-RVLM neurons augmented in heart failure?

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1P-337 Role of Orexin neurons in the hypothalamus during social defeat stress in the rat

Ena Yamamoto, Takatoshi Horiuchi, Misaki Ichikawa, Jouji Horiuchi
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1P-338 Effects of anaphylaxis on the gastric autonomic nerve activities in anesthetized rats

Yuhichi Kuda, Mamoru Tanida, Yasutaka Kurata, Toshishige Shibamoto
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Neuroscience: Brain-machine interface

1P-339 The efficacy of prosthetic retinal stimulation

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1P-340 A possibility of intracortical neural prostheses with carbon-nanotube-based electrodes

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Neuroscience: Others (1)

1P-341 The neuroprotective effects of Metformin after severe traumatic brain injury in male rats:

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1P-342 In vivo otolith organs: clinical significance of its shape between normal and Meniere's disease

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1P-343 A newly synthesized adenosine analogue COA-Cl increases dopamine secretion in mouse brain

Ikuko Tsukamoto[1)], Mostofa Jamal[1)], Maki Takata[1)], Asuka Ito[1)], Junsuke Igarashi[2)], Yasuo Kubota[1)], Hiroshi Kinoshita[1)], Norikazu Sakakibara[3)], Ryoji Konishi[1)]
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1P-344 Neurotrophic Role of Glucagon-like Peptide-1 Promotes Neuronal Differentiation via PI3K-AKT Axis

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1P–345 Cholinergic induction of network oscillations in the slug olfactory neuron *in vitro*

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1P–346 Cycle duration-modulated information transfer of olfactory andvomeronasal sensory neurons in mice

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1P–347 The Neuro-protective Role of Parkin-mediated Mitophagy in Ethambutol-induced Toxic Optic Neuropathy

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1P–348 Tregs Protect Dopaminergic Neurons against MPP^+ Neurotoxicity via CD47-SIRPA Interaction

Yan Huang, Zhan Liu, Yuping Peng
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1P–349 Pathology-dependent mitochondria-cytoskeleton interaction in amyotrophic lateral sclerosis (ALS)

Tomohiro Tanaka[1,2)], Akiyuki Nishimura[3)], Okiru Komine[4)], Koji Yamanaka[4)], Motohiro Nishida[1,2,3)]
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1P–350 Continuous laryngeal TRPV1 activation modulates swallowing initiation in anesthetized rats

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1P–351 Prevention of Dry-Eye Pain by Diquafosol Sodium Administration

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1P–352 Analysis of activated cortical area caused by food restriction in mice

Jihao Ma, Sakurako Yanase, Lisa Udagawa, Tomoyuki Kuwaki, Ikue Kusumoto-Yoshida
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1P–353 TLR2-dependent signaling relay of glial-neuronal circuits to regulate thermoregulation

Saki Murayama, Erkin Kurganov, Seiji Miyata
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1P–354 A novel TRPM8 expressing “cold-neuron” in mouse hypothalamus and medulla

Erkin Kurganov, Kaho Okamoto, Seiji Miyata

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1P–355 Sensitivity of voltage-dependent Ca^{2+} channels in rat AVP neurons to an anthranilic acid derivative

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1P–356 Behavioral and neural characteristics of recognition of the binary taste mixture in rats

Tomoki Yamamura, Yoshihisa Katagawa, Toshiaki Yasuo, Takeshi Suwabe, Noritaka Sako

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1P–357 An imaging system for 3D detection of nano-vibrations in sensory epithelium of the inner ear

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1P–358 Effects of self-motion on the hippocampal CA1 place cell activities in the freely behaving monkey

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1P–359 Massage-like stroking stimulation induces 50-kHz ultrasonic vocalizations

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1P–360 Retinal circadian rhythm is entrained by the SCN via corticosterone secretion from the adrenal gland

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1P–361 Exercise capacity and intelligence in adults after betamethasone given to 4-day-old infant rats

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1P–362 Characteristics of motor and memory functions in cerebral hypoperfusion model rat by microspheres

Naoyuki Himi[1], Naohiko Okabe[1], Emi Maruyama Nakamura[1], Hisashi Takahashi[2], Norito Hayashi[1], Issei Sakamoto[1], Tomoshige Koga[2], Osamu Miyamoto[1]

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1P-363 H_2S Attenuates Maternal Cigarette Smoke Exposure-Induced Oxidative Stress in pFRG in Neonatal Rats

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1P-364 Maternal Cigarette Smoke Exposure Disturbs Excitatory/Inhibitory Balance in pFRG of Neonatal Rats

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1P-365 Brown adipose tissue is involved in anti-obesity effects of royal jelly in high fat diet-fed mice

Akira Terao[1)], Takeshi Yoneshiro[2)], Ryuji Kaede[2)], Kazuki Nagaya[2)], Julia Aoyama[2)], Mana Saito[2)], Yuko Okamatsu-Ogura[2)], Kazuhiro Kimura[2)]
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1P-366 Effect of LH stimulation on formalin-induced orofacial pain: role of orexin1 receptors in the VTA

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1P-367 Ischemic postconditioning induced by opening of mK^+_{ATP} channels and NMDAR silencing by mPTP opening

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1P-368 Effect of cannabinoids in prefrontal on decision making mediates via change in p-CREB and p-GSK3

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1P-369 Low frequency stimulation targeting the subiculum reverses drug resistance in temporal lobe epilepsy

Fan Fei, Cenglin Xu, Yi Wang, Yao Liu, Ying Wang, Fang Ding, Kai Zhong, Shuang Wang, Zhong Chen
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1P-370 Utilizing the TRPV1 and TRPM8 channels to facilitate the swallowing

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1P-371 Mating with SFPs deficient males cause the suppression of NaCl intake in females in *Drosophila*

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1P–372 Mood stabilizing drugs activate adult neural stem cell-neurogenesis system

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1P–373 Chebulinic acid negated the development of streptozotocin induced experimental dementia in rats

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1P–374 Chronic EEG recording from rodents using ceramic-guided wire electrodes

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1P–375 Retinal ON pathways contribute to temporal characteristics of visual motion processing in mice

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1P–376 Distribution of Smad mRNA and proteins in the rat brain

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1P–377 Event related potentials in the first-person shooter game with virtual reality environment

Masashi Arake[1,2)], Hiroyuki Ohta[3)], Aki Tsuruhara[2)], Yuji Morimoto[3)], Nariyoshi Shinomiya[1)]
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1P–378 Changes in reproductive hormones-related genes in hippocampus of cognitive impaired male rats

Patteera Wititsuwankul, Sukanya Jaroenporn, Taratorn Fainanta, Suchinda Malaivijitnond
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1P–379 Agomelatine protects against on permanent cerebral ischemia model through Nrf2-HO-1 pathway

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1P–380 Effects of taurine supplementation with exercise onantioxidant enzymes activities in aging rat brain

Jiraporn Onsri, Rungrudee Srisawat
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1P-381 Effects of quercetin on neuronal activity in the hypothalamic food intake regulating areas

Naiyana Nontamart, Rungrudee Srisawat
School of Preclinic, Institute of Science, Suranaree University of Technology, Thailand

1P-382 Dihydrocapsaicin improves functional recovery after cerebral ischemia and reperfusion in rat model

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1P-383 The Effect of difference of cognitive control levels in SRK model on EEG frontal theta band

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1P-384 Parvalbumin positive neurons in the basolateral amygdala and anxiety-like behavior in OLETF rats

Ryosuke Ochi[1)], Naoto Fujita[1)], Natsuki Goto[1)], Hisao Nishijo[2)], Susumu Urakawa[1)]
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1P-385 Role of the medulla in the regulation of slow wave sleep

Yoshimasa Koyama, Kazuki Kobayashi, Hayato Iwata, Tatsuya Suzuki, Kaname Mochizuki, Yoshifumi Arai
Department of Science and Technology, Fukushima University, Japan

1P-386 The Protective Effect of Neferine on Permanent Ischemic Brain Injury in Rats

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1P-387 Effects of NSAIDs on cerebral glucose metabolism measured by [^{18}F] FDG uptake in rat brain slices

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Epithelial Transport, Secretion & Absorption: Epithelium (1)

1P-388 MLCK isoforms regulate intestinal epithelial hyperpermeability under inflammatory stress

Yu Chen Pai, Tsung-Chun Lee, Chia-Hui Yu
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1P–389 TRPV6 mutations cause neonatal transient hyperparathyroidism

Yoshiro Suzuki[1,2)], David Chitayat[3)], Hirotake Sawada[4)], Gen Nishimura[5)], Makoto Tominaga[1,2)]

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1P–390 Involvement of EP receptors in the regulation of Short circuit current by prostaglandins in A6 cells

Sun Hongxin[1,2)], Marunaka Yoshinori[2)], Asano Shinji[1,2)]

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1P–391 Oligomerization of Na^+/H^+ exchanger isoform 3 (NHE3) and its role in the transport mechanism

Noriko Ishizuka, Shino Koido, Hisayoshi Hayashi

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1P–392 Computer simulation of intracellular HCO_3^-/CO_2 buffering in pancreatic duct cell

Makoto Yamaguchi[1)], Martin Steward[2)], Yoshiro Sohma[3)], Akiko Yamamoto[1)], Hiroshi Ishiguro[1)]

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1P–393 Secretory reflex pathway of Xenin-25 in the rat ileum

Atsukazu Kuwahara[1)], Yuko Kuwahara[2)], Ikuo Kato[3)], Toshio Inui[4)], Yoshinori Marunaka[1,2,5)]

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1P–394 Secretory reflex pathway of SCFA in the rat distal colon

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1P–395 Epithelial ion secretion of human bronchial ciliary epithelium

Shigekuni Hosogi[1,2)], Leonardo Puppulin[2)], Nobuyo Tamiya[4)], Hideo Tanaka[3)], Koichi Takayama[4)], Eishi Ashihara[1)]

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1P–396 Zinc finger protein 521 involved in small intestinal function and stem cell differentiation

Nazuna Morisada, Kotone Miyake, Mamoru Aoto, Noriaki Mitsuda, Nobutaka Ohkubo

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1P–397 Role of cysteine protease inhibitors in malignancy of oral squamous cell carcinoma

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1P–398 Renal impairment disturbs the intestinal microbiota and alters intestinal motility

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1P–399 Down-regulation of PDGFRα+ cells caused colonic dysmotility in DSS-induced colitis mice

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1P–400 Neurogenic relaxation of Xenin on spontaneous circular muscle contractions in rat distal colon

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1P–401 CRF regulates colonic motility through CRF-PDGFRα$^+$/ICC pathway

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1P–402 Regulation of gastric motility by histamine via interstitial cells of Cajal in the Syrian hamster

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1P–403 Changes of colonic transit in feeding state after abdominal open surgery in conscious rat

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1P–404 The mechanism of sexually dimorphic responses of colorectal motility by noxious stimulation in rats

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Epithelial Transport, Secretion & Absorption: Renal Physiology (1)

1P–405 Recovery of tight junctional localization and Mg^{2+} transport of claudin-16 mutant by primaquine

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1P–406 Endocytosis of NKCC2 is impaired in renal tubule in moesin knockout mice

Kotoku Kawaguchi[1)], Ryo Hatano[2)], Shinji Asano[1)]

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1P–407 Quantitative analysis of epithelial transport in proximal tubule with mathematical model

Taiki Nishizuka[1)], Junichi Taniguchi[2)], Akinori Noma[1)], Yukiko Himeno[1)], Akira Amano[1)]

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1P–408 Low-Pi diet-induced metabolic acidosis with alkalinuria was reversed in the Pendrin KO mice

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1P–409 Atorvastatin ameliorates renal injury in high-fat diet-induced obese rats

Anusorn Lungkaphin, Nattavadee Pengrattanachot, Rada Chengwelling, La-ongdao Thongnak, Anchalee Pongchaidecha

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1P–410 Protective role of COUP-TFII against cisplatin-induced acute kidney injury

Sumiyasu Ishii, Noriyuki Koibuchi

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1P-411 Possible Role of Garlic Oil in Ameliorating Renal Injury after Liver Ischemia/Reperfusion in Rats

Noha Nooh Lasheen, Wael Alayat, Mohamed Fathy
Associate Professor of Physiology, Physiology Department, Faculty of Medicine, Ain Shams University, Egypt

1P-412 A novel NEU mutagenesis model rat of chronic kidney disease

Iori Ohmori[1)], Tomoji Mashimo[2)], Mamoru Ouchida[3)], Shinya Toyokuni[4)]
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1P-413 Pathogenic role of ERK1/2-mTORC1 axis in adriamycin-induced glomerulosclerosis

Soo-Jin Kim[1)], Ranjan Das[1)], Nhung Thi Nguyen[1)], Luong Dai Ly[1)], Ji-Hee Kim[1)], Kyu-Hee Hwang[1)], Dat Da Ly[1)], Eunha Chang[1)], Hyeong Ju Kwon[2)], Seung-Kuy Cha[1)], Kyu-Sang Park[1)]
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Molecular & Cellular Biology: Channels & Transporters (1)

1P-414 Role of TRPV3-ANO1 interaction in keratinocyte wound healing

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1P-415 Functional analyses for a Ca^{2+} binding site of TRPM4 and TRPM5 channels

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1P-416 Enhanced activity by NKCC1 and SLC26A6 in cardioplegic arrest of db/db heart

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Department of Physiology, College of Medicine, Gachon University, Lee Gil Ya Cancer and Diabetes Institute, Korea

1P-417 Involvement of thermosensitive TRP channels in temperature-dependent microglia movement

Sandra Derouiche[1)], Rei Nishimoto[1)], Kei Eto[2)], Makoto Tominaga[1)]
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1P-418 Characterization of TRPA1 from disease vector mosquitoes

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1P–419 Simultaneous intracellular temperature imaging during patch-clamp recording of TRPV1 activity

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1P–420 A key interaction for modulation of voltage dependence by phosphoinositides in two-pore channel 3

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1P–421 Inhibition of IL-10 transcription by $K_{Ca}3.1$ K^+ channel activation in human T-cell lymphoma

Susumu Ohya[1)], Miki Matsui[1,2)], Junko Kajikuri[1)], Hiroaki Kito[1)], Kyoko Endo[1,2)], Yuki Hasagawa[2)], Shin-ya Murate[1)]

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1P–422 Ion Permeation of Voltage Sensor and its Foundation Structure

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1P–423 Identification of amino acids involved in the 4-isopropylcyclohexanol action on TRP channels

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1P–424 TRPV1 and ANO1/TMEM16A interaction in inflammatory pain conditions

Yasunori Takayama, Makoto Tominaga

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1P–425 DNA origami scaffolds as templates for Kir3.1/3.4 heterotetrameric channels

Tatsuki Kurokawa[1,2)], Shigeki Kiyonaka[2)], Eiji Nakata[3)], Masayuki Endo[4)], Emiko Mori[2)], Nam Ha Tran[2)], Chikara Sato[6)], Hiroshi Sugiyama[4,5)], Takashi Morii[3)], Yasuo Mori[2)]

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1P–426 A tension-modulated modality of the KcsA channel exclusive for acid-activated state

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1P–427 Determinants of Ba^{2+} sensitivity in zebrafish ROMK channels

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1P–428 Functional Interaction between TRPM8 and ANO1

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1P–429 Analysis of dynamic structural rearrangements of Two-Pore Na^+ Channel 3 by voltage clamp fluorometry

Ki-Ichi Hirazawa[1,2)], Takushi Shimomura[1,2)], Yoshihiro Kubo[1,2)]

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1P–430 Mechano-gating of Piezo1 mutants identified in patients affected by Hereditary Xerocytosis

Yohei Yamaguchi[1,2)], Hélène Guizouarn[3)], Olivier Soriani[3)], Akira Takai[1)], Peter Kohl[2)], Rémi Peyronnet[2)]

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1P–431 Involvement of TRPA1 channel in FK506-incuced pain sensation

Kunitoshi Uchida[1)], Tomo Kita[1)], Kenichi Kato[1)], Yoshiro Suzuki[2)], Makoto Tominaga[2,3)], Jun Yamazaki[1)]

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1P–432 What is the pH-gradient Sensing in the Voltage-Gated H^+ Channel?

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1P–433 Withdrawn

1P–434 Magnesium ion influx in H9c2 cells with TRPM7 gene silencing

Michiko Tashiro[1)], Hana Inoue[1)], Ryo Kobayashi[2)], Masato Konishi[1)]

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1P–435 The role of TRPM4 in immune responses in keratinocytes and the novel TRPM4 agonist

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1P–436 Analysis of chondrocytes anion channel activity in vitro model of osteoarthritis

Kosuke Kumagai[1,2)], Futoshi Toyoda[2)], Caroline Staunton[3)], Tsutomu Maeda[1)], Hitoshi Tanigawa[1)], Noriaki Okumura[1)], Mitsuhiko Kubo[1)], Takahumi Yayama[1)], Hiroshi Matsuura[2)], Shinji Imai[1)], Richard Barrett-Jolley[3)]

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1P–437 The Ca^{2+}-permeable cation TRPV3 channel: an emerging pivotal target for itch and skin diseases

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1P–438 (AP-3) Cytoplasmic conformational changes of VSP detected by voltage clamp fluorescence spectroscopy

Akira Kawanabe, Tomoko Yonezawa, Yasushi Okamura

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1P–439 The regulation of TRPV1 channel gating by intracellular ATP

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1P–440 Recognition of capsaicin via transient receptor potential channel and transmembrane protein

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1P–441 Regulation of TRPM7 channel activity by its kinase domain

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1P–442 Mapping the agonist binding site of the FMRFamide-gated Na^+ channel

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1P–443 Development of tonotopic differentiation of axon initial segment in avian nucleus magnocellularis

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1P–444 A calcium-binding protein S100A10 is a regulator of Maxi-Cl channel activity

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1P–445 Toward the understanding of hexose specificity of Na^+D-glucose cotransporters SGLT1 and SGLT2

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1P–446 The comparison of sensitivity between NaPi-IIa and NaPi-IIb activity to phosphoinositides

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1P–447 An endosome-resident zinc transporter negatively regulates systemic dsRNA spreading in *C. elegans*

Katsufumi Dejima, Rieko Imae, Yuji Suehiro, Shohei Mitani
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1P–448 Evaluation of effects of empagliflozin on mouse ventricular myocytes

Hinako Suzuki[1)], Takuma Yoshizawa[2)], Shunsuke Aoki[3)], Saki Watanabe[4)], Yukari Takeda[5)], Ayako Takeuchi[5)], Satoshi Matsuoka[5)]
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1P–449 A united chemotherapy to reverse drug resistance in ovarian cancer

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1P–450 AMP-activated protein kinase dissociates vesicle association of clathrin heavy chain CHC22

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1P–451 Function analysis of NHE1 using a strategy of cardiomyocyte differentiation from human iPS cells

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1P–452 Developmental regulation of KCC2 phosphorylation is essential for GABA signaling and survival

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Kristopher T Kahle[3,4)], Atsuo Fukuda[1)]
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1P–453 Characterization of transgenic mice overexpressing dominant negative TRPM7 mutant

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1P–454 Characterizations of the HCO_3^- transport activities of a choroid plexus-specific variant of NBC4

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1P–455 Glycative stress influences skeletal muscle growth and cell growth signaling in mice

Tatsuro Egawa[1,2)], Yoshitaka Ohno[2)], Shingo Yokoyama[2)], Ayumi Goto[1,3)], Satoshi Tsuda[1)], Katsumasa Goto[2)], Tatsuya Hayashi[1)]
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1P–456 Intracellular cAMP induces Ca^{2+} influx in odontoblasts

Maki Kimura[1)], Asuka Higashikawa[1)], Sadao Ohyama[1,2)], Wataru Ofusa[1)], Miyuki Shimada[1)], Hidetaka Kuroda[3)], Hiroyuki Mochizuki[1)], Masayuki Ando[1)], Kyosuke Kono[1)], Yoshiyuki Shibukawa[1)]
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1P–457 P2Y6 receptor antagonist MRS2578 induces atypical signaling

Kakeru Shimoda[1,2)], Caroline Sunggip[1)], Akiyuki Nishimura[3)], Tomohiro Tanaka[1)], Takuro Numaga-Tomita[1,2)], Kazuhiro Nishiyama[3)], Motohiro Nishida[1,2,3)]
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1P–458 PDGF signals contribute to proliferation and migration of human prostate cancer cell

Md Junayed Nayeem, Aya Yamamura, Rie Takahashi, Hisaki Hayashi, Motohiko Sato
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1P–459 Single-cell imaging analysis of inflammatory JNK signaling

Taichiro Tomida[1)], Kimitaka Yamaguchi[1)], Masanori Ito[1)], Yoshinori Mikami[1)], Daisuke Ohshima[1)], Shingo Murakami[2)],

Satomi Adachi-Akahane[1)]
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1P–460 LMHFV promotes BMSCs to Differentiate into osteoblast via a Novel lincRNA-7140 in osteoporosis rat

Liang Li[1)], Chengjian Cao[1)], Xiaoqin Yu[1)], Huiming Li[1)], Xiaojing Liu[2)], Wenchao Wu[2)], Xueling He[1)]
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1P–461 Effect of hydrogen sulfide and L-cysteine on the principal cells of rat cortical collecting ducts

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1P–462 Voltage-dependent Ionic Channels in Human Cementoblast

Satomi Kamata[1)], Asuka Higashikawa[2)], Maki Kimura[2)], Sadao Oyama[2)], Yoshiyuki Shibukawa[2)], Shuichiro Yamashita[1)]
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1P–463 Insulin Regulates Adrenal Steroidogenesis by Stabilizing SF-1 Activity

Dong Joo Yang[1,2)], Ann Wambui Kinyua[2)], Ji Su Sun[1)], Seul Ki Kim[1)], Yun-Hee Choi[1)], Dong Min Shin[1)], Ki Woo Kim[1)]
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1P–464 The 2nd Residue of GPCR Helix 8 May Control Transient and Specific Interaction with its G Protein

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1P–465 The role for *O*-linked *N*-acetylglucosamine cycling in macrophage Toll-like receptor signaling

Ken Shirato[1)], Junetsu Ogasawara[2)], Takuya Sakurai[1)], Kazuhiko Imaizumi[3)], Hideki Ohno[4)], Takako Kizaki[1)]
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1P–466 Hypotonic Stress Induces ATP Release via Volume-regulated Anion Channels in Breast Cell Lines

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1P–467 Estrogen deficiency compromised the β_2AR-Gs/Gi: implications for arrhythmia and cardiac injury

Yu Zhang[1)], Hongjian Hou[1)], Zhiwei Zhao[2)], Jeremiah Ong'achwa Machuki[1)], Lin Zhang[1)], Yan Zhang[1)], Lu Fu[1)], Jinxia Wu[1)], Yuyu Liu[2)], Sian E. Harding[3)], Hong Sun[1)]
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Disease Research, Xuzhou Medical University, China, [3]Myocardial Function Section, National Heart and Lung Institute, Imperial College London

1P–468 Inhibition of HSC activation by caffeine is elicited by antagonizing adenosine receptor-Akt1 pathway

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1P–469 Phosphorylation analysis in renal arterioles by advanced phos-tag SDS-PAGE method

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Department of Veterinaly Medicine, Okayama University of Science, Japan

1P–470 IL-6 promotes CDK5-induced STAT3/androgen receptor activation in prostate cancer cells

Wan-Chen Yu[1)], Pei-Chi Li[1)], Fu-Ning Hsu[1)], Chieh-Lin Jerry Teng[2)], Hsin-Yi Wang[3)], Mei-Chih Chen[4,5)], Ho Lin[1)]
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1P–471 Acute exposure to PRMT1 inhibitor can regulate contraction in isolated mouse ventricular myocytes

Xue An[1)], Hyun Ji Kim[1)], Jung Hoon Pyun[2)], Jong Sun Kang[2)], Hana Cho[1)]
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1P–472 Conditional deletion of PRMT1 in adult brain reveals its neuronal cell type-specific roles

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1P–473 Procathepsin B without mannose-6-phosphaste is released from secretory granules

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1P–474 Pathophysiological roles of an actin-binding protein ezrin in the kidney

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1P–475 The efflux characteristics of mitochondrial calcium

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1P–476 Role of mito-K_{ATP} channel in Formation of the De-energized Mitochondrial Membrane Potential

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1P–477 Multistep adaptation of nuclear transport system depending on varying heat stress

Yutaka Ogawa, Naoko Imamoto
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1P–478 Physiological functions of Hikeshi, a nuclear import carrier of molecular chaperone HSP70

Shingo Kose, Ai Watanabe, Naoko Imamoto
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1P–479 Palmitate induces ER Ca^{2+} depletion and defective lysosomal Ca^{2+} release in insulin-secreting cells

Luong Dai Ly[1,2)], Dat Da Ly[1,2)], Nhung Thi Nguyen[1,2)], Soo-Jin Kim[1,2)], Seung-Kuy Cha[1,2)], Myungsik Lee[3)], Kyu-Sang Park[1,2)]
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1P–480 Direct Fyn-paxillin binding controls migration of coronary artery smooth muscle cells

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1P–481 Fascia related muscle contracture

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1P–482 Inhibitory effects of chloride intracellular channel protein 2 on distant metastasis of tumor cells

Akihiro Umakoshi[1)], Saya Ozaki[2)], Yutaro Sumida[1)], Shota Ohsumi[1)], Erika Hayase[1)], Yoshitomo Ueno[3)], Yasutsugu Takada[3)], Takeharu Kunieda[2)], Hajime Yano[1)], Junya Tanaka[1)]
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1P–483 Gelatin alters the TGF-beta signaling for RANKL induced osteo-clastogenesis

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1P–484 Evaluation of cell damage during cold-stress and re-warming

Daisuke Kobayashi, Keisuke Yoshida, Shingo Tsuji, Tomoki Nagae, Akihiro Hazama
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1P–485 The role of BAG3 on the heat-induced cell death in human cancer cells

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1P–486 Lysosomal Proton Sponge Effect by a Cationic Gold Nanorod-Doxorubicin in Cancer Cells

Dongun Lee[1)], Jun-Young Park[1)], Song Kwon[1)], Jun Young Park[1)], Dongwoo Khang[1,2)], Jeong Hee Hong[1,2)]

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1P–487 Periodontitis elicits salivary gland atrophy via plasma TNF-α and infiltration of B-cells

Takemi Shikayama[1,3)], Misa Sago-Ito[2)], Suzuro Hitomi[1)], Izumi Ujihara[1)], Mako Naniwa[1)], Michihiko Usui[3)], Keisuke Nakashima[3)], Kentaro Ono[1)]

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1P–488 N-terminal region of apoptosis-inducing factor stabilizes formation of charge transfer complex

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1P–490 Loss of GPx4 in vascular endothelial cells induces accumulation of lipid peroxide and cell death

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1P–491 Synergistic inhibition of Dinaciclib and Paclitaxel on breast cancer cell growth

Yu-Hsuan Li[1)], Hsin-Shun Tseng[2)], Mei-Chih Chen[3,4)], Ho Lin[1)]

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1P–492 Bitter tastant and bacterial metabolite modulate glucagon-like peptide-1 secretion

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1P–493 Sequential phosphoinositide conversion is required for TGFβ–induced receptor endocytosis in ECs

Sho Aki[1)], Kazuaki Yoshioka[1)], Noriko Takuwa[2)], Yoh Takuwa[1)]

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1P–494 The roles of p11 for the localization and heteromeric channel formation of TASK1 and TASK3 isoforms

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1P–495 Astrocytic spontaneous hormone exocytosis modulated by spontaneous cytosolic Ca^{2+} increase

Mai Takizawa, Kazuki Harada, Takashi Tsuboi
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1P–496 Molecular mechanisms of deoxycholic acid induced glucagon-like peptide-1 secretion

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1P–497 Effect of temperature on raft-dependent endocytosis during activation of T cells by concanavalin A

Masahiro Takagi, Neha Sharma, Naofumi Shimokawa
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1P–498 Electrophysiological evidence for increased thrombopoiesis in the bone marrow in CRF rat model

Itsuro Kazama[1,2)]
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1P–499 The outer BRB in diabetic retina is regulated by interaction between microglia and RPE cells

Jeong Hun Kim[1,2,3)], Jin Hyoung Kim[3)], Dong Hyun Jo[3)], Jang-Hyuk Yun[1)], Chung-Hyun Cho[1)]
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1P–500 Expression of Tyrosine Hydroxylase in $CD4^+$ T Cells Alleviates Collagen-Induced Arthritis

Xiao-Qin Wang, Yan Liu, Yi-Hua Qiu
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1P–501 Effects of 405 nm light by using light emitting diods on cultured HeLa cells

Toshitaka Ikehara[1,2)], Mutsumi Nakahashi[3)], Takahiro Emoto[5)], Masatake Akutagawa[5)], Koichiro Tsuchiya[4)], Akira Takahashi[6)], Yohsuke Kinouchi[5)]
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1P–502 Inhibitory effect of Corylifol C on RANKL-induced osteoclast differentiation and bone resorption

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1P–503 Sestrin 2 regulates osteoclast differentiation through interaction with p62 and TRAF6

Namju Kang, Sue Young Oh, Dong Min Shin
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1P–504 A novel screening system to predict injured organs using cell-free DNA in serum

Wataru Miyazaki, Hiroyuki Yajima, Michifumi Kokubo, Noriyuki Koibuchi
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1P–505 The stress-induced stress tolerance acquisition in ciliated protozoan *Paramecium caudatum*

Mikihiko Arikawa[1)], Yasutaka Chikuda[2)], Tatsuomi Matsuoka[1)]
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1P–506 Calcium-dependent regulation of cortical actin filaments in mouse eggs

Shunta Arakawa, Takashi Yoshida, Hideki Shirakawa
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1P–507 Target-gene disruption by CRISPR/xCas9 system in *Drosophila melanogaster*

Xuyang Ni, Gongyin Ye, Jia Huang
Institute of Insect Sciences, Zhejiang University, China

1P–508 Electrophysiological properties of inwardly rectifying K^+ channel in glioblastoma stem-like cells

Mikio Hayashi[1)], Ryoichi Iwata[2)], Naaz Andharia[1)], Kohei Ofune[2)], Kunikazu Yoshimura[2)], Masahiro Nonaka[2)], Akio Asai[2)], Hiroko Matsuda[1)]
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1P–509 Downregulating CXCR4 by miR-139 to restrain breast cancer stem cell-like phenotypes

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1P–510 CHIP-mediated ubiquitination of Gal1 predicts prognosis of colorectal cancer

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1P–511 CD105 maintains the thermogenic program of beige adipocyte

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1P–512 Leucine and Caffeine induce mitochondrial biogenesis and down-regulation of miRNAs in C2C12 myotubes

Claudia Perez Lopez[1)], Tsubasa Shibaguchi[2)], Kazumi Masuda[1)]

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1P–513 Effects of supplementation of fatty acids on viability of B16F10 and neural stem cells

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1P–514 STAT6 promotes myoblast differentiation and fusion

Mitsutoshi Kurosaka, Yuji Ogura, Kazuhisa Koda, Toshiya Funabashi
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1P–515 Analysis of Molecular and Cellular Roles of the GON domain in ER-to-Golgi transport

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Adaptation, Environment & Evolution (1)

1P–517 Relationships between exploration and anxiety in male Formosan wood mice (*Apodemus semotus*)

Shu-Chuan Yang[1)], Hsien-Yong Lai[2)], Kun-Ruey Shieh[3)]
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1P–518 Exploratory behaviors related to central dopaminergic activities in male Formosan wood mice

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1P–519 Characterization of splicing variants of frog TRPA1 revealed divergence in their thermal property

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1P–520 (AP-7) Fos expression in the hypothalamic nuclei after changes from hypergravity to normal gravity in mice

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1P–522 Impact of long-term stay in micro-gravity on vestibular function

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1P–523 Effect of RBM3 on Glycolysis and Apoptosis in the Liver After Acute Cold Exposure

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1P–524 Different adaptation of Chinese expeditioners during prolonged Antarctic and sub-Antarctic residence

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1P–525 Circadian Rhythm and Sleep during Prolonged Antarctic Residence at Chinese Zhongshan Station

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1P–526 The sleep parameter and autonomic nervous response in menopausal women

Michiko Tanaka[1)], Mou Nagasaka[1)], Chiyomi Egami[2)], Miyuki Matsuyama[2)], Kiyoka Yamashita[2)], Yukiko Ogata[2)], Aki Nozue[3)], Yoshikazu Sakakibara[4)]
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1P–527 Time since injury and thermoregulatory responses in hyperthermic person with spinal cord injury

Yoshi-Ichiro Kamijo[1,3)], Manabu Shibasaki[2)], Tokio Kinoshita[3)], Takashi Moriki[3)], Yasunori Umemoto[1)], Ken Kouda[1)], Fumihiro Tajima[1,3)]
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1P–528 Neural network during cognitive tasks during whole body heat stress

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1P–529 A study of ultradian rhythm expression with a mathematical model

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1P–530 Ultradian Calcium Rhythms in the PVN and SPZ in the Hypothalamus

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1P–531 Thermosensors and neural circuit regulating temperature-dependent negative masking behavior in mice

Wataru Ota[1,2)], Yusuke Nakane[1,2)], Makiko Kashio[4)], Yoshiro Suzuki[5,6)], Kazuhiro Nakamura[7)], Yasuo Mori[8)], Makoto Tominaga[5,6)], Takashi Yoshimura[1,2,3,9)]
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1P–532 Real time recording of clock gene expression in multiple tissues of freely moving mice

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1P–533 The evaluation of activity and body temperature fluctuation in animal model of shift work

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1P–534 Optical imaging of circadian calcium rhythm in a solitary supra-chiasmatic neuron

Yoshihiro Hirata[1)], Ryosuke Enoki[1,2)], Kaori Kuribayashi-Shigetomi[4)], Yoshiaki Oda[5)], Sato Honma[3,5)], Ken-Ichi Honma[3,5)]

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1P–535 Chemical and thermal sensitivity of axolotl TRPA1

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1P–536 Innate and acquired cold tolerant properties in hibernating Syrian hamsters (*Mesocricetus auratus*)

Hiroki Shimaoka[1)], Yuuma Yoshida[1)], Manami Kurata[1)], Yuuki Horii[1)], Hiroki Sakai[2)], Takahiko Shiina[1)], Yasutake Shimizu[1,3)]

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1P–537 Effect of blue light blocking glass on melatonin secretion and sleep quality in humans

Sayo Oishi[1)], Maki Sato[2)], Chihiro Kodama[2)], Yoko Inukai[2)], Mika Kamiya[2)], Naoki Nishimura[2)], Satoshi Iwase[2)]

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1P–538 Cell autonomous cold resistance of a mammalian hibernator, Syrian hamster

Daisuke Anegawa[1,2)], Yuichi Chayama[2)], Lisa Ando[2)], Hiroki Taii[2)], Shuji Shigenobu[3)], Yuya Sato[1,2)], Masayuki Miura[2)], Yoshifumi Yamaguchi[1)]

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1P–539 Alternative splicing of cold-inducible RNA-binding protein mRNA in hypothermic animals

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Physiome

1P–540 Weighted gene co-expression network analysis in chronic kidney disease and hemodialysis patients

Tomoyoshi Terada[1,2)], Hiromichi Akahori[2)], Yoshinori Muto[1,2)]

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1P–541 Reflected conduction caused by subcellular sodium channel redistributions

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1P–542 Simulation study on the nitrogen homeostasis disturbed by defect of glutamine synthase in liver

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Alternative Medicine (1)

1P–543 Cortical cerebral blood flow response induced by manual acupuncture of the auricular region in rats

Sae Uchida[1], Hiroshi Taniguchi[1,2], Yoshie Ito[1,3], Fusako Kagitani[1,3]

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1P–544 Influence of press tack needle acupuncture on the secretion of orexin

Aki Fujiwara[1,2)], Mana Tsukada[1)], Hideshi Ikemoto[1)], Toku Takahashi[1,3)], Chiaki Tezuka[1)], Kana Takahashi[1)], Takuji Izuno[1)], Tadashi Hisamitsu[1)], Masataka Sunagawa[1)]

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1P–546 Family history of hypertension has an effect on blood pressure response with fragrance inhalation

Eriko Kawai[1)], Ryosuke Takeda[2)], Kosuke Saho[1)], Akemi Ota[1)], Emiko Morita[1)], Daiki Imai[1,2)], Yuta Suzuki[1,2)], Hisayo Yokoyama[1,2)], Kazunobu Okazaki[1,2)]

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1P–547 Physiological effects in CNS and the autonomic nervous system by drinking jasmine tea

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1P–548 Contribution of oxytocin to the anti-stress effect of Kampo medicine *Kamikihito*

Mana Tsukada[1)], Tadashi Ikemoto[1)], Xiao Pen Lee[2)], Takaaki Matsuyama[2)], Takuji Izuno[1)], Toku Takahashi[1,3)], Tadashi Hisamitsu[1)], Masataka Sunagawa[1)]

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1P–549 Asymmetric Dimethylarginine and Endothelin B Receptor Modulation in *Piper Sarmentosum* Treated Rats

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1P–550 Theobromine increases plasma cholesterol levels by increasing ABCA1 protein

Natsuki Hiruma[1)], Naotoshi Sugimoto[2)], Kentaro Matsuzaki[3)], Eri Sumiyoshi[3)], Osamu Shido[3)], Masanori Katakura[1)]

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1P–551 Nonequivalent effect of CO_2-water bath on muscle fatigue caused by isotonic- and isometric-exercise

Masaaki Hashimoto[1)], Noriyuki Yamamoto[2)]

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1P–552 Change in the foot pressure distribution to dental occlusion adjustment by micro tapping with paper

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1P–553 Analysis of Ultrasound Changes in Vastus Lateralis Muscle following Transcutaneous Vacume Treatment

Junzo Tsujita[1)], Tomonari Shibutani[2,6)], Hiroshi Ueno[3)], Yoichiro Yamashita[4)], Arijit Banerjee[5)], Mitsuharu Kaya[6)], Masanori Takemura[7)], Kenichi Ichihashi[7)]

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1P-554 Changes of HRV and resting-state amygdala functional connectivity after SKY practicing

Ting-Wei Hsu[1)], Sheng-Kai Lee[3)], Chun-Yu Lin[4)], A-Min Huang[2)]

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