

## Key Research Papers in Medicine, Shinshu University 2020

### Aging Biology

1. Huo J, Xu Z, Hosoe K, et al: Coenzyme Q10 prevents senescence and dysfunction caused by oxidative stress in vascular endothelial cells. *Oxid Med Cell Longev* 3181759, 2018.
2. Sawashita J, Zhang B, Hasegawa K, et al: C-terminal sequence of amyloid-resistant type F apolipoprotein A-II inhibits amyloid fibril formation of apolipoprotein A-II in mice. *Proc Natl Acad Sci USA* 112: E836-E845, 2015.
3. Mori M, Li G, Abe I, et al: Lanosterol synthase mutations cause cholesterol deficiency-associated cataracts in the Shumiya cataract rat. *J Clin Invest* 116: 395-404, 2006.

### Molecular Pathology

1. Kawakubo M, Ito Y, Okimura Y, et al: Natural antibiotic function of a human gastric mucin against *Helicobacter pylori* infection. *Science* 305: 1003-1006, 2004.
2. Karasawa F, Shiota A, Goso Y, et al: Essential role of gastric gland mucin in preventing gastric cancer in mice. *J Clin Invest* 122: 923-934, 2012.
3. Shiratsu K, Higuchi K, Nakayama J: Loss of gastric gland mucin-specific O-glycan is associated with progression of differentiated-type adenocarcinoma of the stomach. *Cancer Sci* 105: 126-133, 2014.

### Metabolic Regulation

1. Tanaka N, Aoyama T, Kimura S, et al: Targeting nuclear receptors for the treatment of fatty liver disease. *Pharmacol Ther* 179: 142-157, 2017.
2. Wang X, Tanaka N, Hu X, et al: A high-cholesterol diet promotes steatohepatitis and liver tumorigenesis in HCV core gene transgenic mice. *Arch Toxicol* 93: 1713-1725, 2019.
3. Tanaka N, Kimura T, Fujimori N, et al: Current status, problems, and perspectives of non-alcoholic fatty liver disease research. *World J Gastroenterol* 25: 163-177, 2019.

### Cardiovascular Research

1. Koyama T, Ochoa-Callejero L, Sakurai T, et al: Vascular endothelial adrenomedullin-RAMP2 system is essential for vascular integrity and organ homeostasis. *Circulation* 127: 842-853, 2013.
2. Yoshizawa T, Sakurai T, Kamiyoshi A, et al: Novel regulation of cardiac metabolism and homeostasis by the adrenomedullin-RAMP2 system. *Hypertension* 61: 341-351, 2013.
3. Ichikawa-Shindo Y, Sakurai T, Kamiyoshi A, et al: GPCR modulator protein RAMP2 is essential for angiogenesis and vascular integrity. *J Clin Invest* 118: 29-39, 2008.

### Sports Medical Sciences

1. Masuki S, Morikawa M, Nose H: High-Intensity Walking Time Is a Key Determinant to Increase Physical Fitness and Improve Health Outcomes After Interval Walking Training in Middle-Aged and Older People. *Mayo Clin Proc* 94: 2415-2426, 2019.
2. Masuki S, Morikawa M, Nose H: Interval Walking Training Can Increase Physical Fitness in Middle-Aged and Older People. *Exerc Sport Sci Rev* 45: 154-162, 2017.
3. Morikawa M, Okazaki K, Masuki S, et al: Physical fitness and indices of lifestyle-related diseases before and after interval walking training in middle-aged and older males and females. *Br J Sports Med* 45: 216-224, 2011.

**Histology and Embryology**

1. Tomotsune D, Hirashima K, Fujii M, et al: Enrichment of Pluripotent Stem Cell-Derived Hepatocyte-Like Cells by Ammonia Treatment. *PLoS One* 11: 1-13, 2016.
2. Yue F, Hirashima K, Tomotsune D, et al: Reprogramming of retinoblastoma cancer cells into cancer stem cells. *Biochem Biophys Res Commun* 22: 549-555, 2017.
3. Rosines E, Johkura K, Zhang X, et al: Constructing kidney-like tissues from cells based on programs for organ development: towards a method of in vitro engineering of the kidney. *Tissue Eng Part A* 16: 2441-2455, 2010.

**Anatomy**

1. Karasawa M, Yokouchi K, Kawagishi K, et al: Effects of various lengths of hypoglossal nerve resection on motoneuron survival. *J Clin Neurosci* 60: 128-131, 2019.
2. Kakegawa A, Mori Y, Tsuchiya A, et al: Independent Attachment of Lateral Ankle Ligaments: Anterior Talofibular and Calcaneofibular Ligaments - A Cadaveric Study. *J Foot Ankle Surg* 58: 717-722, 2019.
3. Fukushima N, Yokouchi K, Kuroiwa M, et al: Acetyl-l-carnitine enhances myelination of regenerated fibers of the lateral olfactory tract. *Neurosci Lett* 653: 215-219, 2017.

**Molecular Pathophysiology**

1. Sawamura T, Kume N, Masaki T, et al: An endothelial receptor for oxidized low-density lipoprotein. *Nature* 386: 73-77, 1997.
2. Liang YQ, Kakino A, Matsuzaka Y, et al: LOX-1 (lectin-like oxidized low-density lipoprotein receptor-1) deletion has protective effects on stroke in the genetic background of Stroke-Prone Spontaneously Hypertensive Rat. *Stroke* 51: 1835-1843, 2020.
3. Akhmedov A, Sawamura T, Chen CH, et al: Lectin-like Oxidized LDL Receptor-1 (LOX-1): A crucial driver of atherosclerotic cardiovascular disease. *Eur Heart J*, 2020 in press.

**Molecular Cellular Physiology**

1. Mori T, Kasem EA, Suzuki-Kouyama E, et al: Deficiency of calcium/calmodulin-dependent serine protein kinase disrupts the excitatory-inhibitory balance of synapses by down-regulating GluN2B. *Mol Psychiatry* 24: 1079-1092, 2019.
2. Anderson GR, Aoto J, Tabuchi K, et al:  $\beta$ -Neurexins Control Neural Circuits by Regulating Synaptic Endocannabinoid Signaling. *Cell* 162: 593-606, 2015.
3. Aoto J, Martinelli DC, Malenka RC, et al: Presynaptic neurexin-3 alternative splicing trans-synaptically controls postsynaptic AMPA receptor trafficking. *Cell* 154: 75-88, 2013.

**Biochemistry and Molecular Biology**

1. Hiratsuka S, Tomita T, Mishima T, et al: High KA, Maru Y: Hepato-entrained B220<sup>+</sup>CD11c<sup>+</sup>NK1.1<sup>+</sup> cells regulate pre-metastatic niche formation in the lung. *EMBO Mol Med* 10: e8643-e8643, 2018.

**Molecular Pharmacology**

1. Kashihara T, Kawagishi H, Nakada T, et al:  $\beta$ -Arrestin-Biased AT1 Agonist, TRV027 Causes a Neonatal-Specific Sustained Positive Inotropic Effect without Increasing Heart Rate. *JACC. Basic to Translational Science* 2020, in press.

2. Guo X, Kashihara T, Nakada T, et al: PDGF-induced migration of synthetic vascular smooth muscle cells through c-Src-activated L-type Ca<sup>2+</sup> channels with full-length CaV1.2 C-terminus. *Pflugers Arch* 470: 909-921, 2018.
3. Nakada T, Kashihara T, Komatsu M, et al: Physical interaction of junctophilin and the CaV1.1C-terminus is crucial for skeletal muscle contraction. *Proc Natl Acad Sci USA* 115: 4507-4512, 2018.

### **Pathology**

1. Ohya M, Nakazawa K, Kanno H: Lower number of 5-hydroxymethylcytosine-expressing cells in plasma cell myeloma than in reactive plasma cell hyperplasia: a useful immunohistochemical approach for identification of neoplastic plasma cells. *Pathology* 51: 81-85, 2019.
2. Yamamoto Y, Tsuzuki T, Akatsuka J, et al: Automated acquisition of explainable knowledge from unannotated histopathology images. *Nat Commun* 10: 5642, 2019.
3. Kobayashi M, Ogawa E, Okuyama R, et al: In vasculitis of small muscular arteries, activation of vessel-infiltrating CD8 T cells seems to be antigen-independent. *Virchows Arch* 472: 271-279, 2018.

### **Pathobiology**

1. Ding K, Shibui A, Wang Y, et al: Impaired recognition by Toll-like receptor 4 is responsible for exacerbated murine Pneumocystis pneumonia. *Microbes Infect* 7: 195-203, 2005.
2. Yan H, Takamoto M, Sugane K: Exposure to Bisphenol A prenatally or in adulthood promotes TH2 cytokine production associated with reduction of CD4+CD25+ regulatory T cells. *Environ Health Perspect* 116: 514-519, 2008.
3. Jin D, Takamoto M, Hu T, et al: STAT6 signalling is important in CD8 T-cell activation and defense against Toxoplasma gondii infection in the brain. *Immunology* 127: 187-195, 2009.

### **Microbiology and Immunology**

1. Amano Y, Akazawa K, Yasuda J, et al: A low-frequency IL-4R locus variant in Japanese patients with intravenous immunoglobulin therapy-unresponsive Kawasaki disease. *Pediatr Rheumatol Online J* 17: 34, 2019.
2. Kojima K, Amano Y, Yoshino K, et al: ESCRT-0 Protein Hrs Is Targeted to Endosomes Independent of STAM and the Complex Formation with STAM Promotes Its Endosomal Dissociation. *J Biol Chem* 289: 33296-33210, 2014.
3. Amano Y, Yamashita Y, Kojima K, et al: Hrs recognizes a hydrophobic amino acid cluster in cytokine receptors during ubiquitin-independent endosomal sorting. *J Biol Chem* 286: 15458-15472, 2011.

### **Molecular and Cellular Immunology**

1. Ichikawa E, Hida S, Omatsu Y, et al: Defective development of splenic and epidermal CD4+ dendritic cells in mice deficient for interferon regulatory factor-2. *Proc Natl Acad Sci USA* 101: 3909-3914, 2004.
2. Hida S, Tadachi M, Saito T, et al: Negative control of basophil expansion by IRF-2 critical for the regulation of Th1/Th2 balance. *Blood* 106: 2011-2017, 2005.
3. Hida S, Yamasaki S, Sakamoto Y, et al: Fc receptor  $\gamma$ -chain, a constitutive component of the IL-3 receptor, is required for IL-3-induced IL-4 production in basophils. *Nat Immunol* 10: 214-222, 2009.

**Medical Genetics**

1. Kosho T, Nakamura T, Kawame H, et al: Neonatal management of trisomy 18: clinical details of 24 patients receiving intensive treatment. *Am J Med Genet A* 140: 937-944, 2006.
2. Miyake N, Kosho T, Mizumoto S, et al: Loss-of-function mutations of CHST14 in a new type of Ehlers-Danlos syndrome. *Hum Mutat* 31: 966-974, 2010.
3. Kawamura R, Tanabe H, Wada T, et al: Visualization of the spatial positioning of the SNRPN, UBE3A, and GABRB3 genes in the normal human nucleus by three-color 3D fluorescence in situ hybridization. *Chromosome Res* 20: 659-672, 2012.

**Preventive Medicine and Public Health**

1. Motoki M, Inaba Y, Shibasaki T, et al: The Japan Environment & Children's Study (JECS) Group. Maternal exposure to housing renovation during pregnancy and risk of offspring with congenital malformation: The Japan Environment and Children's Study. *Sci Rep* 9: 11564, 2019.
2. Tsukahara T, Fujimori A, Misawa Y, et al: The Preventive Effect of Lactoferrin-Containing Yogurt on Gastroenteritis in Nursery School Children-Intervention Study for 15 Weeks. *Int J Environ Res Public Health* 17: 2534, 2020.
3. Kamiyo T, Tsukahara T, Shimazu A, et al: Risk Factors for Duty-Related Posttraumatic Stress Disorder among Police Officers in the Mt. Ontake Eruption Disaster-Support Task Force. *Int J Environ Res Public Health* 17: 3134, 2020.

**Legal Medicine**

1. Shiozaki T, Sato N, Hayashi T, et al: Wild-type ATTR amyloidosis may be associated with unexpected death among the elderly. *Leg Med* 41: 101634, 2019.
2. Nunotani M, Sato N, Kamei S, et al: Development of Multiple Assays using 46 SNPs for Comprehensive mtDNA Haplogrouping and Application to Highly Degraded DNA. *J Forensic Sci* 61: 472-477, 2016.
3. Kamei S, Sato N, Harayama Y, et al: Molecular analysis of potassium ion channel genes in sudden death cases among patients administered psychotropic drug therapy: are polymorphisms in LQT genes a potential risk factor? *J Hum Genet* 59: 95-99, 2014.

**Regenerative Medicine**

1. Ogasawara T, Okano S, Ichimura H, et al: Impact of extracellular matrix on engraftment and maturation of pluripotent stem cell-derived cardiomyocytes in a rat myocardial infarct model. *Sci Rep* 7: 8630, 2017.
2. Shiba Y, Gomibuchi T, Seto T, et al: Allogeneic transplantation of iPS cell-derived cardiomyocytes regenerates primate hearts. *Nature* 538: 388-391, 2016.
3. Shiba Y, Fernandes S, Zhu WZ, et al: Human ES-cell-derived cardiomyocytes electrically couple and suppress arrhythmias in injured hearts. *Nature* 489: 322-325, 2012.

**Internal Medicine 1 (Respirology, Infectious Disease and Allergology)**

1. Yamamoto H, Yasuo M, Ito M, et al: Clinical features of central airway involvement in autoimmune pancreatitis. *Eur Respir J* 38: 1233-1236, 2011.
2. Agatsuma T, Koizumi T, Kanda S, et al: Combination chemotherapy with doxorubicin, vincristine,

cyclophosphamide, and platinum compounds for advanced thymic carcinoma. *J Thorac Oncol* 6: 2130-2134, 2011.

3. Hanaoka M, Droma Y, Chen Y, et al: Carbocysteine protects against emphysema induced by cigarette smoke extract in rats. *Chest* 139: 1101-1108, 2011.

### **Internal Medicine 2 (Gastroenterology, Nephrology and Hematology)**

1. Umemura T, Tanaka E, Kiyosawa K, et al: Mortality secondary to fulminant hepatic failure in patients with prior resolution of hepatitis B virus infection in Japan. *Clin Infect Dis* 47: e52-e56, 2008.
2. Hamano H, Kawa S, Horiuchi A, et al: High serum IgG4 concentrations in patients with sclerosing pancreatitis. *N Engl J Med* 344: 732-738, 2001.
3. Kiyosawa K, Sodeyama T, Tanaka E, et al: Interrelationship of blood transfusion, non-A, non-B hepatitis and hepatocellular carcinoma: analysis by detection of antibody to hepatitis C virus. *Hepatology* 12: 671-675, 1990.

### **Internal Medicine 3 (Neurology and Rheumatology)**

1. Adams D, Gonzalez-Duarte A, O'Riordan WD, et al: Patisiran, an RNAi Therapeutic, for Hereditary Transthyretin Amyloidosis. *N Engl J Med* 379: 11-21, 2018.
2. Benson MD, Buxbaum JN, Eisenberg DS, et al: Amyloid nomenclature 2018: recommendations by the International Society of Amyloidosis (ISA) nomenclature committee. *Amyloid* 25: 215-219, 2018.
3. Maurer MS, Schwartz JH, Gundapaneni B, et al: Tafamidis Treatment for Patients with Transthyretin Amyloid Cardiomyopathy. *N Engl J Med* 379: 1007-1016, 2018.

### **Internal Medicine 4 (Diabetes, Endocrinology and Metabolism)**

1. Hiramatsu K, Yamada T, Yukimura Y, et al: A screening test to identify aldosterone-producing adenoma by measuring plasma renin activity. Results in hypertensive patients. *Arch Intern Med* 141: 1589-1593, 1981.
2. Sato Y, Aizawa T, Komatsu M, et al: Dual functional role of membrane depolarization/Ca<sup>2+</sup>influx in rat pancreatic B-cell. *Diabetes* 41: 438-443, 1992.
3. Komatsu M, Takei M, Ishii H, et al: Glucose-stimulated insulin secretion: A newer perspective. *J Diabetes Investig* 27: 511-516, 2013.

### **Internal Medicine 5 (Cardiovascular Disease)**

1. Miura T, Miyashita Y, Soga Y, et al: Drug-Eluting Versus Bare-Metal Stent Implantation with or without Cilostazol in the Treatment of the Superficial Femoral Artery. *Circ Cardiovasc Interv* 11: e006564, 2018.
2. Minamisawa M, Claggett B, Adams D, et al: Association of Patisiran, an RNA Interference Therapeutic, With Regional Left Ventricular Myocardial Strain in Hereditary Transthyretin Amyloidosis The APOLLO Study. *JAMA Cardiol* 4: 466-472, 2019.
3. Nishimura A, Shimauchi T, Tanaka T, et al: Hypoxia-induced interaction of filamin with Drp1 causes mitochondrial hyperfission-associated myocardial senescence. *Sci Signal* 11: eaat5185, 2018.

### **Psychiatry**

1. Kito H, Ryokawa A, Kinoshita Y, et al: Comparison of alterations in cerebral hemoglobin oxygenation

in late life depression and Alzheimer's disease as assessed by near-infrared spectroscopy. *Behav Brain Funct* 10: 8, 2014.

2. Kobayashi M, Sugiyama N, Sasayama D, et al: Sex differences in the serum level of endogenous ligands for estrogen receptor  $\beta$  in the elderly population. *Sci Rep* 6: 25878, 2016.
3. Sasayama D, Hattori K, Ogawa S, et al: Genome-wide quantitative trait loci mapping of the human cerebrospinal fluid proteome. *Hum Mol Genet* 26(1): 44-51, 2017.

### **Pediatrics**

1. Honma H, Nakayama Y, Kato S, et al: Clinical features of Helicobacter pylori antibody-positive junior high school students in Nagano Prefecture, Japan. *Helicobacter* 24: e12559, 2019.
2. Motoki N, Inaba Y, Shibasaki T, et al: Maternal Exposure to Housing Renovation During Pregnancy and Risk of Offspring with Congenital Malformation: The Japan Environment and Children's Study. *Sci Rep* 9: 11564, 2019.
3. Yanagaisawa R, Matsuda K, Ohga S, et al. Factors predicting the recurrence of Epstein-Barr virus-associated hemophagocytic lymphohistiocytosis in children after treatment using the HLH-2004 protocol. *Int J Hematol* 109: 612-617, 2019.

### **Dermatology**

1. Minagawa A, Omodaka T, Okuyama R: Melanomas favor mechanical stress points on the plantar surface. *N Engl J Med* 374: 2404-2406, 2016.
2. Hidaka T, Ogawa E, Kobayashi EH, et al: AhR links atopic dermatitis and air pollution via artemin induction. *Nat Immunol* 18: 64-73, 2017.
3. Sakaizawa K, Goto Y, Kiniwa Y, et al: Mutation analysis of BRAF and KIT in circulating melanoma cells at the single cell level. *Brit J Cancer* 106: 939-946, 2012.

### **Radiology**

1. Fujinaga Y, Kadoya M, Kawa S, et al: Characteristic findings in images of extra-pancreatic lesions associated with autoimmune pancreatitis. *Eur J Radiol* 76: 228-238, 2009.
2. Yamada A, Hara T, Li F, et al: Quantitative Evaluation of Liver Function with Use of Gadoxetate Disodium-enhanced MR Imaging. *Radiology* 260: 727-733, 2011.
3. Fujinaga Y, Ohya A, Tokoro H, et al: Radial volumetric imaging breath-hold examination (VIBE) with k-space weighted image contrast (KWIC) for dynamic gadoteric acid (Gd-EOB-DTPA)-enhanced MRI of the liver: advantages over Cartesian VIBE in the arterial phase. *Eur Radiol* 24: 1290-1299, 2014.

### **Surgery (Division of Gastroenterological, Hepato-Biliary-Pancreatic, Transplantation and Pediatric Surgery)**

1. Ohno Y, Mita A, Ikegami T, et al: Temporary auxiliary partial orthotopic liver transplantation using a small graft for familial amyloid polyneuropathy. *Am J Transplant* 12: 2211-2219, 2012.
2. Shimizu A, Kobayashi A, Yokoyama T, et al: Correlation between the serum levels of type IV collagen 7s domain and the risk of intractable ascites following liver resection for hepatocellular carcinoma: A propensity score-matched analysis. *Surgery* 160: 1244-1255, 2016.
3. Kitazawa M, Hida S, Fujii C, et al: ASC Induces Apoptosis via Activation of Caspase-9 by Enhancing

Gap Junction-Mediated Intercellular Communication. *PLoS One* 12: e0169340, 2017.

### **Surgery (Division of Cardiovascular Surgery)**

1. Amano J, Akashima T, Terasaki T, et al: Characteristics of cardiac allograft vasculopathy induced by immunomodulation in the miniature swine. *Ann Thorac Cardiovasc Surg* 21: 45-52, 2015.
2. Komatsu K, Takano T, Terasaki T, et al: Surgical outcomes of acute type A aortic dissection in elderly patients. *Ann Thorac Surg* 97(5): 1576-1581, 2014.
3. Gomibuchi T, Seto T, Komatsu M, et al: Impact of frailty on outcomes in acute type A aortic dissection. *Ann Thorac Surg* 106(5): 1349-1355, 2018.

### **Surgery (Division of General Thoracic Surgery)**

1. Shimizu K, Goto Y, Kawabata-Iwakawa R, et al: Stathmin-1 is a useful diagnostic marker for high-grade lung neuroendocrine tumors. *Ann Thorac Surg* 108: 235-243, 2019.
2. Shimizu K, Ohtaki Y, Okumura T, et al: Outcomes and prognostic factors after pulmonary metastasectomy in patients with colorectal cancer with previously resected hepatic metastases. *J Thorac Cardiovasc Surg* 157(5): 2049-2057, 2019.
3. Shimizu K, Kaira K, Higuchi T, et al: Relationship Between Tumor Immune Markers and Fluorine-18- $\alpha$ -Methyltyrosine ([<sup>18</sup>F]FAMT) Uptake in Patients with Lung Cancer. *Mol Imaging Biol* 22: 1078-1086, 2019.

### **Surgery (Division of Breast and Endocrine Surgery)**

1. Fujita T, Ito K, Izumi H, et al: Increased nuclear localization of transcription factor Y-box binding protein 1 accompanied by up-regulation of P-glycoprotein in breast cancer pretreated with paclitaxel. *Clin Cancer Res* 11: 8837-8844, 2005.
2. Ito T, Kamijo S, Izumi H, et al: Alteration of Y-box binding protein-1 expression modifies the response to endocrine therapy in estrogen receptor-positive breast cancer. *Breast Cancer Res Treat* 133: 145-159, 2012.
3. Mochizuki Y, Ito K, Izumi H, et al: Expression of polypeptide N-acetylgalactosaminyl transferase-3 and its association with clinicopathological factors in thyroid carcinomas. *Thyroid* 23: 1553-1560, 2013.

### **Orthopedic Surgery**

1. Sobajima A, Haniu H, Nomura H, et al: Organ accumulation and carcinogenicity of highly dispersed multi-walled carbon nanotubes administered intravenously in transgenic rasH2 mice. *Int J Nanomedicine* 14: 6465-6480, 2019.
2. Uehara M, Takahashi J, Ikegami S, et al: Sagittal spinal alignment deviation in the general elderly population: A Japanese cohort survey randomly sampled from a basic resident registry. *Spine J* 19: 349-356, 2019.
3. Nakamura K, Hirachi K, Uchiyama S, et al: Long-term clinical and radiographic outcomes after open reduction for missed Monteggia fracture-dislocations in children. *J Bone Joint Surg Am* 91: 1394-1404, 2009.

### Neurosurgery

1. Goto T, Hongo K, Ogiwara T, et al: Intelligent Surgeon's Arm Supporting System iArmS in Microscopic Neurosurgery Utilizing Robotic Technology. *World Neurosurg* 119: e661-e665, 2018.
2. Horiuchi T, Ichinose S, Agata M, et al: STA-ACA bypass using the ipsilateral free STA graft as an interposition graft and A3-A3 anastomosis for treatment of bilateral ACA steno-occlusive ischemia. *Acta Neurochir (Wien)* 160: 779-782, 2018.
3. Ogiwara T, Goto T, Hara Y, et al: Real-Time Navigation-Guided Drilling Technique for Skull Base Surgery in the Middle and Posterior Fossae. *J Neurol Surg B Skull Base* 79 (Suppl 4): S334-S339, 2018.

### Dentistry and Oral Surgery

1. Yamada S, Kurita H, Kondo E, et al: Treatment outcomes and prognostic factors of medication-related osteonecrosis of the jaw: a case- and literature-based review. *Clin Oral Investig* 23: 3203-3211, 2019.
2. Sakurai SI, Yamada S, Karasawa I, et al: A longitudinal study on the relationship between dental health and metabolic syndrome in Japan. *J Periodontol* 90: 728-746, 2019.
3. Nishimaki F, Yamada S, Kawamoto M, et al: Relationship Between the Quantity of Oral Candida and Systemic Condition/Diseases of the Host: Oral Candida Increases with Advancing Age and Anemia. *Mycopathologia* 184: 251-260, 2019.

### Urology

1. Nagai T, Imamura T, Ogawa T, et al: Nicotine-induced hypoxia in rat urothelium deteriorates bladder storage functions. *Neurourol Urodyn* 38: 1560-1570, 2019.
2. Minagawa T, Ogawa T, Ishizuka O: Fluid dynamic assessment of the lower urinary tract: Exploratory research to observe vorticity in the prostatic urethra after transurethral enucleation. *Int J Urol* 26(8): 853-854, 2019.
3. Suzuki T, Hattori R, Minagawa T, et al: Intestinal injury by heat conduction from surgical sealing devices. *JLS* 23(1): 10.4293/JLS.2018.00100, 2019.

### Ophthalmology

1. Hirano T, Kakihara S, Toriyama Y, et al: Wide-field en face swept-source optical coherence tomography angiography using extended field imaging in diabetic retinopathy. *Br J Ophthalmol* 102: 1199-1203, 2018.
2. Hirano T, Toriyama Y, Iesato Y, et al: Changes in plasma vascular endothelial growth factor level after intravitreal injection of ranibizumab, aflibercept, or bevacizumab for diabetic macular edema. *Retina* 38: 1801-1808, 2018.
3. Hirano T, Chanwimol K, Weichsel J, et al: Distinct Retinal Capillary Plexuses in Normal Eyes as Observed in Optical Coherence Tomography Angiography Axial Profile Analysis. *Sci Rep* 8: 9380, 2018.

### Otorhinolaryngology

1. Yokota Y, Moteki H, Nishio SY, et al: Frequency and clinical features of hearing loss caused by STRC deletions. *Sci Rep* 9: 4408, 2019.
2. Usami S, Moteki H, Tsukada K et al: Hearing preservation and clinical outcome of 32 consecutive



electric acoustic stimulation (EAS) surgeries. *Acta Otolaryngol* 137: 717-727, 2014.

3. Nishio SY, Usami SI: The Clinical Next-Generation Sequencing Database: A Tool for the Unified Management of Clinical Information and Genetic Variants to Accelerate Variant Pathogenicity Classification. *Hum Mut* 38: 252-259, 2017.

### **Obstetrics and Gynecology**

1. Suzuki A, Horiuchi A, Ashida T, et al: Cyclin A2 confers cisplatin resistance to endometrial carcinoma cells via up-regulation of an Akt-binding protein, periplakin. *J Cell Mol Med* 19: 2305-2317, 2010.
2. Miyamoto T, Shiozawa T, Kashima H, et al: Estrogen up-regulates mismatch repair activity in normal and malignant endometrial glandular cells. *Endocrinology* 147: 4863-4870, 2006.
3. Takatsu A, Shiozawa T, Miyamoto T, et al: Preoperative differential diagnosis of minimal deviation adenocarcinoma and lobular endocervical glandular hyperplasia of the uterine cervix: a multicenter study of clinicopathology and magnetic resonance imaging findings. *Int J Gynecol Cancer* 21: 1287-1296, 2011.

### **Anesthesiology and Resuscitology**

1. Zhang H, Kashihara T, Nakada T, et al: Prostanoid EP4 receptor-mediated augmentation of Ih currents in A $\beta$  dorsal root ganglion neurons underlies neuropathic pain. *J Pharmacol Exp Ther* 368: 50-58, 2019.
2. Fuseya S, Yamamoto K, Minemura H, et al: Systemic QX-314 Reduces Bone Cancer Pain through Selective Inhibition of Transient Receptor Potential Vanilloid Subfamily 1-expressing Primary Afferents in Mice. *Anesthesiology* 125: 204-218, 2016.
3. Ishida T, Tanaka S, Sekiguchi T, et al: Spinal nociceptive transmission by mechanical stimulation of bone marrow. *Mol Pain* 12: 1-15, 2016.

### **Plastic and Reconstructive Surgery**

1. Nakajima Y, Yuzuriha S, Nagai F, et al: Oronasal Transfixion Suture to Prevent Uplifted Nasal Floor Deformity in Cleft Lip and Palate Patients: A 5-Year Follow-Up. *Cleft Palate Craniofac J* 56: 390-394, 2019.
2. Nishioka H, Kondoh S, Yuzuriha S: Convex bone deformity after closed reduction of nasal bone fracture. *J Plast Reconstr Aesthet Surg* 71: 85-89, 2018.
3. Yuzuriha S, Nagai F, Noguchi M: How to manage disfiguring scars in involuted infantile hemangioma. *Adv Wound Care* 8: 221-229, 2019.

### **Laboratory Medicine**

1. Honda T, Uehara T, Matsumoto G, et al: Neutrophil left shift and white blood cell count as markers of bacterial infection. *Clin Chim Acta* 457: 46-53, 2016.
2. Kinugawa Y, Uehara T, Matsuda K, et al: Promoter hypomethylation of SKI in autoimmune pancreatitis. *Pathol Res Pract* 214: 492-497, 2018.
3. Shimodaira T, Matsuda K, Uchibori T, et al: Upregulation of osteopontin expression via the interaction of macrophages and fibroblasts under IL-1b stimulation. *Cytokine* 110: 63-69, 2018.

### **Emergency and Critical Care Medicine**

1. Nitta K, Imamura H, Kashima Y, et al: Impact of a negative D-dimer result on the initial assessment of acute aortic dissection. *Int J Cardiol* 258: 232-236, 2018.
2. Mochizuki K, Imamura H, Iwashita T, et al: Neurological outcomes after extracorporeal cardiopulmonary resuscitation in patients with out-of-hospital cardiac arrest: a retrospective observational study in a rural tertiary care center. *J Intensive Care* 2: 33, 2014.
3. Nitta K, Okamoto K, Imamura H, et al: A comprehensive protocol for ventilator weaning and extubation: a prospective observational study. *J Intensive Care* 6: 5(2019), 2019.

### **Comprehensive Cancer Therapy**

1. Dufva O, Kankainen M, Kelkka T, et al: Aggressive natural killer-cell leukemia mutational landscape and drug profiling highlight JAK-STAT signaling as therapeutic target. *Nat Commun* 9 (1): 1567, 2018.
2. Kawakami T, Sekiguchi N, Kobayashi J, et al: Frequent STAT3 mutations in CD8<sup>+</sup> T cells from patients with pure red cell aplasia. *Blood Adv* 2(20): 2704-2712, 2018.
3. Koizumi T, Otsuki K, Tanaka Y, et al: National incidence and initial therapy for thymic carcinoma in Japan: based on analysis of hospital-based cancer registry data, 2009-2015. *Jpn J Clin Oncol* 50(4): 434-439, 2020.

### **Child and Adolescent Developmental Psychiatry**

1. Yamaguchi M, Sasayama D, Washizuka S: Clinical Utility of Salivary Cytokines for Children with Attention Deficit Hyperactivity Disorder. *International Journal of Medical, Medicine and Health Science* 13: 379-382, 2019.
2. Iwasa M, Shimizu Y, Hara I, et al: The earlier, the better? Diagnostic experiences of parents in a community-based early intervention system for preschool children with autism. *Autism & Developmental Language Impairments* 4: 1-12, 2019.

### **Infection and Host Defense**

3. Moroda M, Takamoto M, Iwakura Y, et al: Interleukin-17A-Deficient Mice Are Highly Susceptible to Toxoplasma gondii Infection Due to Excessively Induced T. gondii HSP70 and Interferon Gamma Production. *Infect Immun* 85: e00399-17, 2017.
4. Desamero MJ, Kakuta S, Chambers JK, et al: Orally administered brown seaweed-derived  $\beta$ -glucan effectively restrained development of gastric dysplasia in A4gnt KO mice that spontaneously develop gastric adenocarcinoma. *Int Immunopharmacol* 60211: 220, 2018.
5. Piao LX, Cheng JH, Aosai F, et al: Cellular immunopathogenesis in primary Toxoplasma gondii infection during pregnancy. *Parasite Immunol* 40: e12570, 2018.

### **Brain Disease Research**

1. Yamada M, Toyoshima Y, Makifuchi T, et al: Spinocerebellar degeneration: Discrepancies between clinical and pathological diagnoses. *Neuropathology* 36: 405-410, 2016.
2. Oyanagi K, Kinoshita M, Suzuki-Kouyama E, et al: Adult onset leukoencephalopathy with axonal spheroids and pigmented glia (ALSP) and Nasu-Hakola disease: Lesion staging and dynamic changes of axons and microglial subset. *Brain Pathol* 27: 748-769, 2017.
3. Kondo Y, Matsushima A, Nagasaki S, et al: Factors predictive of the presence of a CSF1R mutation in patients with leukoencephalopathy. *Eur J Neurol* 27: 369-375, 2020.

### **Innovation of Medical & Health Science Research**

1. Nagashio S, Ajima K, Maejima D, et al: Water intake increases mesenteric lymph flow and the total flux of albumin, long-chain fatty acids, and IL-22 in rats: New concept of absorption in jejunum. *Am J Physiol Gastrointest Liver Physiol* 316: G155-G165, 2019.
2. Kawai Y, Ajima K, Kaidoh M, et al: In vivo support for the new concept of pulmonary blood flow-mediated CO<sub>2</sub> gas excretion in the lungs. *Am J Physiol Lung Cell Mol Physiol* 308: L1224-L1236, 2015.
3. Ohhashi T, Kawai Y: Proposed new lymphology combined with lymphatic physiology, innate immunology, and oncology. *J Physiol Sci* 65: 51-66, 2015.

### **Hearing Implant Science**

1. Shinagawa J, Moteki H, Nishio SY, et al: Prevalence and clinical features of hearing loss caused by EYA4 variants. *Sci Rep* 10(1): 3662, 2020.
2. Usami SI, Nishio SY, Moteki H, et al: Cochlear Implantation From the Perspective of Genetic Background. *Anat Rec (Hoboken)* 303(3): 563-593, 2020.
3. Miyajima H, Moteki H, Day T, et al: Novel ACTG1 mutations in patients identified by massively parallel DNA sequencing cause progressive hearing loss. *Sci Rep* 10(1): 7056, 2020.

### **Radiology Division**

4. Fujinaga Y, Kadoya M, Kawa S, et al: Characteristic findings in images of extra-pancreatic lesions associated with autoimmune pancreatitis. *Eur J Radiol* 76: 228-238, 2009.
5. Yamada A, Hara T, Li F, et al: Quantitative Evaluation of Liver Function with Use of Gadoxetate Disodium-enhanced MR Imaging. *Radiology* 260: 727-733, 2011.
6. Fujinaga Y, Ohya A, Tokoro H, et al: Radial volumetric imaging breath-hold examination (VIBE) with k-space weighted image contrast (KWIC) for dynamic gadoxetic acid (Gd-EOB-DTPA)-enhanced MRI of the liver: advantages over Cartesian VIBE in the arterial phase. *Eur Radiol* 24: 1290-1299, 2014.

### **Blood Transfusion Center**

1. Yanagisawa R, Kubota N, Hidaka E, et al: Cisplatin-induced nephrotoxicity in patients with advanced neuroblastoma. *Pediatr Blood Cancer* 65: e27253, 2018.
2. Kojima S, Yanagisawa R, Tanaka M, et al: Comparison of administration of platelet concentrates suspended in M-sol or BRS-A for pediatric patients. *Transfusion* 58: 2952-2958, 2018.
3. Kobayashi J, Yanagisawa R, Ono T, et al: Administration of platelet concentrates suspended in bicarbonated Ringer's solution in children who had platelet transfusion reactions. *Vox Sang* 113: 128-135, 2018.

### **Center for Medical Genetics**

1. Kosho T, Miyake N, Hatamochi A, et al: A new Ehlers-Danlos syndrome with craniofacial characteristics, multiple congenital contractures, progressive joint and skin laxity, and multisystem fragility-related manifestations. *Am J Med Genet A* 152A(6): 1333-1346, 2010.
2. Kosho T, Okamoto N, Ohashi H, et al: Clinical correlations of mutations affecting six components of the SWI/SNF complex: detailed description of 21 patients and a review of the literature. *Am J Med*

**Genet A** 161A: 1221-1237, 2013.

3. Takano K, Shiba N, Wakui K, et al: Elevation of neuron specific enolase and brain iron deposition on susceptibility-weighted imaging as diagnostic clues for beta-propeller protein-associated neurodegeneration in early childhood: Additional case report and review of the literature. **Am J Med Genet A** 170A: 322-328, 2016.

#### **Intractable Disease Care Center**

1. Ozawa K, Hineno A, Kinoshita T, et al: Suspected adverse effects after human papillomavirus vaccination: A temporal relationship between vaccine administration and the appearance of symptoms in Japan. **Drug Saf** 10: 1219-1229, 2017.
2. Ikeda S: Localized amyloidogenic immunoglobulin light chain-derived amyloidosis in a young boy and an adolescent girl. **Amyloid** 24: 138-140, 2017.

#### **Neuroendovascular Therapy Center**

1. Koyama J, Hanaoka Y, Kiuchi T, et al: Development of Simulator System Using Endovascular Evaluator for Catheter Intervention Training. **Journal of Neuroendovascular Therapy** 12: 1-5, 2018.

#### **Advance Center for Cellular Therapy**

1. Yanagisawa R, Koizumi T, Koya T, et al: WT1-pulsed Dendritic Cell Vaccine Combined with Chemotherapy for Resected Pancreatic Cancer in a Phase I Study. **Anticancer Res** 38: 2217-2225, 2018.

#### **Pharmacy**

1. Ikemura N, Yamaori S, Kobayashi C, et al: Inhibitory effects of antihypertensive drugs on human cytochrome P450 2J2 activity: potent inhibition by azelnidipine and manidipine. **Chem Biol Interact** 306: 1-9, 2019.
2. Mimura A, Yamaori S, Ikemura N, et al: Influence of azole antifungal drugs on blood tacrolimus levels after switching from intravenous tacrolimus to once-daily modified release tacrolimus in patients receiving allogeneic hematopoietic stem cell transplantation. **J Clin Pharm Ther** 2019 in press.
3. Yamaori S, Takami K, Shiozawa A, et al: In vitro inhibition of CYP2C9-mediated warfarin 7-hydroxylation by iguratimod: possible mechanism of iguratimod-warfarin interaction. **Biol Pharm Bull** 38: 441-447, 2015.

#### **Animal Research**

1. Yamanaka H, Kadomatsu R, Takagi T, et al: Antimicrobial resistance profiles of vancomycin-resistant Enterococcus species isolated from laboratory mice. **J Vet Sci** 20: e13, 2019.
2. Yoshizawa T, Mizumoto S, Takahashi Y, et al: Vascular abnormalities in the placenta of Chst14<sup>-/-</sup> fetuses: implications in the pathophysiology of perinatal lethality of the murine model and vascular lesions in human CHST14/D4ST1 deficiency. **Glycobiology** 28: 80-89, 2018.
3. Uekawa A, Yamanaka H, Lieben L, et al: Phosphate-dependent luminal ATP metabolism regulates transcellular calcium transport in intestinal epithelial cells. **The FASEB J** 32: 1903-1915, 2018.

#### **Radioisotope Experiments**

1. Hirota M, Higaki S, Ito S, et al: Radioactive iodine volatilization inhibition effect of cyclodextrin. *J Radioanal Nucl Chem* 320: 621-625, 2019.