

【動物実験施設利用者研究業績】

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(2004年、2005年)

【基礎】

- 生体情報科学講座 (Biological Sciences)
 - 生体情報科学 (Department of Biological Sciences)
- 生体構造医学講座 (Anatomical Science)
 - 形態形成機構学 (Department of Anatomy and Developmental Biology)
 - 機能微細形態学 (Department of Anatomy and Neurobiology)
- 生体制御医学講座 (Bioregulation)
 - 遺伝薬理学 (Department of Pharmacology)
- 腫瘍生物学講座 (Pathology and Tumor Biology)
 - 腫瘍生物学 (Department of Pathology and Tumor Biology)
- 基礎病態学講座 (Basic Pathology)
 - 病態生物医学 (Department of Pathology and Biology of Diseases)
- 感染・免疫学講座 (Infectious Diseases and Immunology)
 - 微生物感染症学 (Department of Microbiology)
 - 免疫細胞生物学 (Department of Immunology and Cell Biology)
- 分子生体制御学講座 (Molecular Biology)
 - 分子生物学 (Department of Medical Chemistry and Molecular Biology)
 - 分子細胞情報学 (Department of Cell Biology)
 - 分子腫瘍学 (Department of Molecular Oncology)
- 遺伝医学講座 (Medical Genetics)
 - 分子遺伝学 (Department of Molecular Genetics)
- 高次脳科学講座 (Basic Neuroscience)
 - 高次脳形態学 (Department of Morphological Brain Science)
 - 認知行動脳科学 (Department of Integrative Brain Science)
 - 神経・細胞薬理学 (Department of Cell Pharmacology)
- 附属研究施設 (Research Facilities)
 - 附属動物実験施設 (Institute of Laboratory Animals)

【臨床】

- 内科学講座 (Internal Medicine)
 - 血液・腫瘍内科 (Department of Hematology and Oncology)
 - 内分泌・代謝内科学 (Department of Medicine and Clinical Science)
 - 循環器内科学 (Department of Cardiovascular Medicine)
 - 消化器内科学 (Department of Gastroenterology and Hepatology)
 - 加齢医学 (Department of Geriatric Medicine)
 - 糖尿病・栄養内科学 (Department of Diabetes and Clinical Nutrition)

発生発達医学講座 (Developmental Medicine)

発達小児科学 (Department of Pediatrics)

放射線医学講座 (Radiology and Nuclear Medicine)

放射線腫瘍学・画像応用治療学 (Department of Radiation Oncology and Image-Applied Therapy)

外科学講座 (Surgery)

肝胆膵・移植外科学 (Department of Hepatobiliary Pancreatic Surgery and Transplantation)

器官外科学講座 (Surgery for Visceral Organs)

婦人科学・産科学 (Department of Gynecology and Obstetrics)

泌尿器科学 (Department of Urology)

心臓血管外科学 (Department of Cardiovascular Surgery)

呼吸器外科学 (Department of Thoracic Surgery)

感覚運動系外科学講座 (Surgery for Sensory and Motor Systems)

形成外科学 (Department of Plastic and Reconstructive Surgery)

眼科学 (Department of Ophthalmology and Visual Sciences)

耳鼻咽喉科・頭頸部外科学 (Department of Otolaryngology-Head and Neck Surgery)

整形外科 (Department of Orthopaedic and Musculoskeletal Surgery)

口腔外科学 (Department of Oral and Maxillofacial Surgery)

脳病態生理学講座 (Clinical Neuroscience)

臨床神経学 (Department of Neurology)

脳神経外科学 (Department of Neurosurgery)

附属病院

輸血部 (Department of Transfusion Medicine and Cell Therapy)

薬剤部 (Department of Pharmacy)

探索医療センター (Translational Research Center)

【その他】

寄付講座 (Contributed Chairs)

免疫ゲノム医学 (Department of Immunology and Genomic Medicine)

先端領域融合医学研究機構 (Horizontal Medical Research Organization)

生体情報科学 (Biological Sciences)

Sato M, Tabata T, Hashimoto K, Nakamura K, Nakao K, Katsuki M, Kitano J, Moriyoshi K, Kano M, Nakanishi S. (2004) Altered agonist sensitivity and desensitization of neuronal mGluR1 responses in knock-in mice by a single amino acid substitution at the PKC phosphorylation site. *Eur J Neurosci.* 20(4):947-55

Yamazaki H, Sekiguchi M, Takamatsu M, Tanabe Y, Nakanishi S. (2004) Distinct ontogenic and regional expressions of newly identified Cajal-Retzius cell-specific genes during neocorticalogenesis. *Proc Natl Acad Sci U S A.* 101(40):14509-14

形態形成機構学 (Anatomy and Developmental Biology)

Saito H, Komada M, Suzuki M, Nakayama R, Motoyama J, Shiota K, Ishibashi M (2005) Expression of the Mouse Fgf15 Gene Is Directly Initiated by Sonic Hedgehog Signaling in the Diencephalon and Midbrain. *Developmental Dynamics*, 232:282-92.

Okano J, Takigawa T, Seki K, Suzuki S, Shiota K, Ishibashi M (2005) Transforming growth factor b-2 promotes the formation of the mouse cochleovestibular ganglion in organ culture. *Int J Dev Biol*, 49: 23-31.

機能微細形態学 (Anatomy and Neurobiology)

Dezawa M., Kanno H., Hoshino M., Cho H., Matsumoto N., Itokazu Y., Tajima N., Yamada H., Sawada H., Ishikawa H., Mimura T., Kitada M., Suzuki Y. and Ide C. (2004) Specific induction of neuronal cells from bone-marrow stromal cells and application for autologous transplantation. *J. Clin. Invest.* 113: 1071-1710.

Dezawa M., Ishikawa H., Itokazu Y., Yoshihara T., Hoshino M., Takeda S., Ide C. and Nabeshima Y. (2005) Bone marrow stromal cells generate muscle cells and repair muscle degeneration. *Science* 309: 314-317 .

Ishikawa H., Takano M., Matsumoto N., Sawada H., Ide C., Mimura O. and Dezawa M. (2005) The effect of GDNF gene transfer into axotomized retinal ganglion cells using in vivo electroporation with contact type electrode. *Gene Therapy* 12: 289-298 .

遺伝薬理学 (Pharmacology)

Fujishita T, Doi Y, Sonoshita M, Hiai H, Oshima M, Huebner K, Croce CM, and Taketo MM. (2004) Development of spontaneous tumours and intestinal lesions in Fhit gene knockout mice. *Br. J. Cancer.*, 91(8):1571-4.

Kawada K, Sonoshita M, Sakashita H, Takabayashi A, Yamaoka Y, Manabe T, Inaba K, Minato N, Oshima M, and Taketo MM. (2004) Pivotal role of CXCR3 in melanoma cell metastasis to lymph nodes. *Cancer Res.*, 64(11): 4010-7.

Oshima H, Oshima M, Inaba K, and Taketo MM. (2004) Hyperplastic gastric tumors induced by activated macrophages in COX-2/mPGES-1 transgenic mice. *EMBO J.*, 23(7): 1669-78.

Takeda H, Miyoshi H, Tamai Y, Oshima M, and Taketo MM. (2004) Simultaneous expression of COX-2 and mPGES-1 in mouse gastrointestinal hamartomas. *Br. J. Cancer.*, 90(3):701-4.

Oshima M, Oshima H, Matsunaga A, and Taketo MM (2005) Hyperplastic gastric tumors with spasmodic polypeptide-expressing metaplasia caused by tumor necrosis factor-alpha-dependent inflammation in cyclooxygenase-2/microsomal prostaglandin E synthase-1 transgenic mice. *Cancer Res.*, 65(20): 9147-51.

Li Q, Ishikawa TO, Oshima M, and Taketo MM. (2005) The threshold level of adenomatous polyposis coli protein for mouse intestinal tumorigenesis. *Cancer Res.*, 65(19): 8622-7.

Oshima M, Oshima H, and Taketo MM. (2005) Hypergravity induces expression of cyclooxygenase-2 in the heart vessels. *Biochem. Biophys. Res. Commun.*, 330(3) :928-33.

Li Q, Ishikawa TO, Miyoshi H, Oshima M, and Taketo MM. (2005) A targeted mutation of Nkd1 impairs mouse spermatogenesis. *J. Biol. Chem.*, 280(4): 2831-9.

腫瘍生物学 (Pathology and Tumor Biology)

Tohyama O, Imura A, Iwano A, Freund JN, Henrissat B, Fujimori T, Nabeshima Y (2004) Klotho is a novel b-glucuronidase capable of hydrolyzing steroid b-glucuronides. *J. Biol. Chem.*, 279, 9777-9784.

Takeshita K, Fujimori T, Kurotaki Y, Honjo H, Tsujikawa H, Yasui K, Lee JK, Kamiya K, Kitaichi K, Yamamoto K, Ito M, Kondo T, Iino S, Inden Y, Hirai M, Murohara T, Kodama I, Nabeshima Y (2004) Sinoatrial node dysfunction and early unexpected death of mice with a defect of klotho gene expression. *Circulation*, 109, 1776-1782.

Yoshida S, Takakura A, Ohbo K, Abe K, Wakabayashi J, Yamamoto M, Suda T, Nabeshima Y (2004) Neurogenin 3 delineates the earliest stages of spermatogenesis in the mouse testis. *Dev. Biol.*, 269, 447-458.

Kurohara K, Komatsu K, Kurisaki T, Masuda A, Irie N, Asano M, Sudo K, Nabeshima Y, Iwakura Y, Sehara-Fujisawa A (2004) Essential roles

of Meltrin beta (ADAM19) in heart development. *Dev. Biol.*, 267, 14-28.

Imura A, Iwano A, Kita N, Tohyama O, Fujimori T, Nabeshima Y (2004) Secreted Klotho protein in sera and CSF: Implication for post-translational cleavage in release of Klotho protein from cell membrane. *EBS Lett.*, 565, 143-147.

Shimada T, Takeshita Y, Murohara T, Sasaki K, Egami K, Shintani S, Katsuda Y, Ikeda H, Nabeshima Y, Imaizumi T (2004) Angiogenesis and vasculogenesis are impaired in the precocious-aging klotho mouse. *Circulation*, 110, 1148-1155.

Dezawa M, Kanno H, Hoshino M, Cho H, Matsumoto N, Itokazu Y, Tajima N, Yamada H, Sawada H, Ishikawa H, Mimura T, Kitada M, Suzuki Y, Ide C (2004) Specific induction of neuronal cells from bone-marrow stromal cells and application for autologous transplantation. *J. Clin. Invest.*, 113, 1701-1710.

Dezawa M, Ishikawa H, Itokazu Y, Yoshihara T, Hoshino M, Takeda S, Ide C, Nabeshima Y (2005) Skeletal muscle cells derived from bone marrow stromal cells and applied to muscle degenerative disorders. *Science*, 309, 314-317.

Hoshino M*, Nakamura S*, Mori K, Kawauchi T, Terao M, Nishimura YV, Fukuda A, Fuse T, Matsuo N, Sone M, Watanabe M, Bito H, Terashima T, Wright CVE, Kawaguchi Y, Nakao K, Nabeshima Y (*:equal contribution) (2005) Ptf1a, a bHLH transcription gene, defines GABAergic neuronal fates in cerebellum. *Neuron*, 47, 201-213.

Ito S, Fujimori T, Furuya A, Satoh J, Nabeshima Y, Nabeshima Y (2005) Impaired negative feedback suppression of bile acid synthesis in mice lacking bKlotho. *J. Clin. Invest.*, 115, 2202-2208.

Dezawa M, Hoshino M, Ide C (2005) Treatment of neurodegenerative diseases using adult bone marrow stromal cell-derived neurons. *Exp. Opin. Biol. Ther.*, 5, 427-435.

Yoshizawa M, Kawauchi T*, Sone M*, Nishimura YV, Terao M, Chihama K, Nabeshima Y, Hoshino M (*: equal contribution) (2005) Involvement of a Rac activator, P-Rex1, in neurotrophin-derived signaling and neuronal migration. *J. Neurosci.*, 25, 4406-4419.

Kawauchi T, Chihama K, Nishimura YV, Nabeshima Y, Hoshino M (2005) MAP1B phosphorylation is differentially regulated by Cdk5/p35, Cdk5/p25 and JNK. *Biochem. Biophys. Res. Comm.*, 331, 50-55.

Nishimura T, Yamaguchi T, Kato K, Yoshizawa M, Nabeshima Y, Ohno S, Hoshino M, Kaibuchi K (2005) PAR-6-PAR-3 mediates Cdc42-induced Rac activation through the Rac GEFs STEF/Tiam1. *Nat. Cell Biol.*, 7, 270-277.

Ding L, Takebayashi H, Watanabe K, Ohtsuki T, Tanaka KF, Nabeshima Y, Chisaka O, Ikenaka K, Ono K (2005) Short-term lineage analysis of dorsally derived Olig3 cells in the developing spinal cord. *Dev. Dyn.*, 234, 622-632.

Gao Z, Sasaoka T, Fujimori T, Oya T, Ishii Y, Sabit H, Kawaguchi M, Kurotaki Y, Naito M, Wada T, Ishizawa S, Kobayashi M, Nabeshima Y, Sasahara M (2005) Deletion of the PDGFR-b gene affects key fibroblast functions important for wound healing. *J. Biol. Chem.*, 280, 9375-9389.

Anamizu Y, Kawaguchi H, Seichi A, Yamaguchi S, Kawakami E, Kanda N, Matsubara S, Kuro-o M, Nabeshima Y, Nakamura K, Oyanagi K (2005) Klotho insufficiency causes decrease of ribosomal RNA gene transcription activity, cytoplasmic RNA and rough ER in the spinal anterior horn cells. *Acta Neuropathol.*, in press.

Dezawa M, Hoshino M, Nabeshima Y, Ide C (2005) Marrow stromal cells: implications in health and disease in the nervous system. *Curr. Mol. Med.*, 5, 723-732.

病態生物医学 (Pathology and Biology of Diseases)

Toyokuni S (2004) Forum editorial: Redox Control of Carcinogenesis and Tumor Biology. *Antioxid Redox Signal*, 6: 481-482.

Nishigori C, Hattori Y, and Toyokuni S (2004) Role of reactive oxygen species in skin carcinogenesis. *Antioxid Redox Signal*, 6: 561-570.

Tanaka T, Akatsuka S, Ozeki M, Shirase T, Hiai H, and Toyokuni S (2004) Redox regulation of annexin 2 and its implications for oxidative stress-induced renal carcinogenesis and metastasis. *Oncogene*, 23: 3980-3989.

Schabitz WR, Schade H, Heiland S, Kollmar R, Bardutzky J, Henninger N, Muller H, Carl U, Toyokuni S, Sommer C, and Schwab S (2004) Neuroprotection by Hyperbaric Oxygenation After Experimental Focal Cerebral Ischemia Monitored by MR-Imaging. *Stroke*, 35: 1175-1179.

Minamiyama Y, Takemura S, Toyokuni S, Imaoka S, Funae Y, Hirohashi K, Yoshikawa T, Okada S (2004) CYP3A induction aggravates endotoxemic liver injury via reactive oxygen species in male rats. *Free Radic Biol Med*, 37:703-712.

Kanatsu-Shinohara M, Inoue K, Lee J, Yoshimoto M, Ogonuki N, Miki H, Kato T, Baba S, Kazuki Y, Toyokuni S, Toyoshima M, Niwa O, Oshimura M, Heike T, Ishino F, Nakahata T, Ogura A, and Shinohara T (2004) Generation of pluripotent stem cells from neonatal mouse testis. *Cell*, 119: 1001-1012.

Iwakura H, Hosoda K, Son C, Fujikura J, Tomita T, Michio Noguchi M, Ariyasu H, Takaya K, Masuzaki H, Ogawa Y, Hayashi T, Inoue G, Akamizu T, Hosoda H, Kojima M, Itoh H, Toyokuni S, Kangawa K and Nakao K (2005) Analysis of rat insulin II promoter-ghrelin transgenic mice and rat glucagon promoter-ghrelin transgenic mice. *J Biol Chem*, 280: 15247-15256.

Ozeki M, Miyagawa-Hayashino A, Akatsuka S, Shirase T, Lee WH, Uchida K and Toyokuni S (2005) Susceptibility of actin to modification by 4-hydroxy-2-nonenal. *J Chromatogr, B* 827: 119-126.

Dutta KK, Nishinaka Y, Masutani H, Akatsuka S, Aung TT, Shirase T, Lee W-H, Yamada Y, Hiai H, Yodoi J and Toyokuni S (2005) Two distinct mechanisms for loss of thioredoxin-binding protein-2 in oxidative stress-induced renal carcinogenesis. *Lab Invest*, 85: 798-807.

Yajima N, Yamada S, Morisaki T, Toyokuni S, Yonehara S and Sakamaki K (2005) Partial correction of abnormal cardiac development in caspase-8-deficient mice by cardiomyocyte expression of p35. *Transgenic Res*, 14:593-604.

Ueno H, Yamada Y, Watanabe R, Mukai E, Hosokawa M, Takahashi A, Hamasaki A, Fujiwara H, Toyokuni S, Yamaguchi M, Takeda J and Seino Y (2005) Nestin-positive cells in adult pancreas express amylase and endocrine precursor cells. *Pancreas*, 31: 126-131.

Terano T, Zhong Y, Toyokuni S, Hiai H, Yamada Y (2005) Transcriptional control of fetal liver hematopoiesis: dominant negative effect of the overexpression of the LIM domain mutants of LMO2. *Exp Hematol*, 33: 641-651.

Kawasaki K, Nishio A, Nakamura H, Uchida K, Fukui T, Ohana M, Yoshizawa H, Ohashi S, Tamaki H, Matsuura M, Asada M, Nishi T, Nakase H, Toyokuni S, Liu W, Yodoi J, Okazaki K, Chiba T (2005) *Helicobacter felis*-induced gastritis was suppressed in mice overexpressing thioredoxin-1. *Lab Invest*, 85: 1104-1117.

Inada A, Nagai K, Arai H, Miyazaki J, Nomura K, Kanamori H, Toyokuni S, Yamada Y, Bonner-Weir S, Weir GC, Fukatsu A, Seino Y (2005) Establishment of a diabetic mouse model with progressive diabetic nephropathy. *Am J Pathol*, 167:327-336.

Naito Y, Akagiri S, Uchiyama K, Kokura S, Yoshida N, Hasegawa G, Nakamura N, Ichikawa H, Toyokuni S, Ijichi T and Yoshikawa T (2005) Reduction of diabetes-induced renal oxidative stress by a cantaloupe melon extract/gliadin biopolymers, oxykine, in mice. *BioFactors*, 23: 85-98.

微生物感染症学 (Microbiology)

Chang B, Amemura-Maekawa J, Kura F, Kawamura I, and Watanebe H (2004) Expression of IL-6 and TNF- α in human alveolar epithelial cells is induced by invaded, but not by adhered *Legionella pneumophila*. *Microbial Pathog* 37: 295-302.

Ito Y, Kawamura I, Kohda C, Tsuchiya K, Nomura T, and Mitsuyama M (2005) Seeligeriolysin O, a protein toxin of *Listeria seeligeri*, stimulates macrophage cytokine production via Toll-like receptors in a profile different from that induced by other bacterial ligands. *Int Immunol* 17: 1597-1606.

Yamamoto K, Kawamura I, Tominaga T, Nomura T, Kohda C, Ito J, and Mitsuyama M (2005) Listeriolysin O, a cytolysin derived from *Listeria monocytogenes*, inhibits generation of ovalbumin-specific Th2 immune response by skewing maturation of antigen-specific T cells into Th1 cells. *Clin Exp Immunol* 142: 268-274.

Fukasawa Y, Kawamura I, Uchiyama R, Yamamoto K, Kaku T, Tominaga T, Nomura T, Iachiyama S, Ezaki T, and Mitsuyama M (2005) Streptomycin-dependent inhibition of cytokine-inducing activity in streptomycin-dependent *Mycobacterium tuberculosis* strain 18b. *Infect Immun* 73: 7051-7055.

Makino M, Kawai M, Kawamura I, Fujita M, Gejo F, and Mitsuyama M (2005) Involvement of reactive oxygen intermediate in the enhanced expression of virulence-associated genes of *Listeria monocytogenes* inside activated macrophages. *Microbiol Immunol* 49: 805-811.

Takeuchi O, Suzuki T, Kawamura I, Kobayashi N, Takizawa-Hashimoto A, and Mitsuyama M (2005) Involvement of the virulence gene products of *Yersinia enterocolitica* in the immune response of infected mice. *FEMS Immunol Med Microbiol* 45: 321-329.

Tsuchiya K, Kawamura I, Takahashi A, Nomura T, Kohda C, and Mitsuyama M (2005) Listeriolysin O-induced membrane permeation mediates persistent interleukin-6 production in Caco-2 cells during *Listeria monocytogenes* infection in vitro. *Infect Immun* 73: 3869-3877.

Michizuki H, Nomura T, Kawamura I and Mitsuyama M (2005) Enhanced resistance to Gram-positive bacterium and increased susceptibility to bacterial endotoxin in mice sensitized with *Propionibacterium acnes*: involvement of Toll-like receptor. *FEMS Immunol Med Microbiol* 43: 287-293.

免疫細胞生物学 (Immunology and Cell Biology)

Harazaki M, Kawai Y, Su L, Hamazaki Y, Nakahata T, Minato N. and Hattori M. (2004) Specific recruitment of SPA-1 to the immunological synapse: involvement of actin-bundling protein actinin. *Immunol. Letter*, 92: 221-226.

服部雅一、湊 長博 (2004) 癌に対する免疫監視機構 - SPA-1 遺伝子破壊マウスを用いた解析 *実験医学*, 22: 143-149.

服部雅一、湊 長博 (2004) SPA-1 欠損による抗原不応性 T 細胞の蓄積 *Molecular Med. (免疫 2004)*, 40: 243-251.

田中義正 (2004) ヒト 型 T 細胞の役割 *BIO Clinica* 19: 59-64

Murata K, Hattori M, Hirai N, Shinozuka Y, Hirata H, Kageyama R, Sakai T. and Minato N. (2005) Hes1 directly controls cell proliferation through the transcriptional repression of p27Kip1. *Mol. Cell. Biol.* 25: 4262-4271.

田中義正 (2005) ヒト 型 T 細胞と抗腫瘍免疫 *臨床免疫* 43: 181-188

分子生物学 (Medical Chemistry and Molecular Biology)

Tanigaki K, Tsuji M, Yamamoto N, Han H, Tsukada J, Inoue H, Kubo M, Honjo T (2004) Regulation of alphabeta/gammadelta T cell lineage commitment and peripheral T cell responses by Notch/RBP-J signaling. *Immunity*. May;20(5):611-22.

分子細胞情報学 (Cell Biology)

Kitajiri S, Miyamoto T, Mineharu A, Sonoda N, Furuse K, Hata M, Sasaki H, Mori Y, Kubota T, Ito J, Furuse M, and Tsukita, Sh, (2004) Compartmentalization established by claudin-11-based tight junctions in stria vascularis is required for hearing through generation of endocochlear potential. *J. Cell Sci.* 117:5087-5096.

Kitajiri S, Fukumoto K, Hata M, Sasaki H, Katsun T, Nakagawa T, Ito J, Tsukita Sh, and Tsukita Sa, (2004) *adixin* deficiency causes deafness associated with progressive degeneration of cochlear stereocilia. *J. Cell Biol.* 166:559-570.

Yuba-Kubo A, Kubo M, Hata M, and Tsukita Sh, (2005) Gene-knockout analysis of two gamma-tubulin isoforms in mice. *Dev.Biol.* 282:361-373.

Tamura A, Kikuchi S, Hata M, Katsuno T, Matsui T, Hayashi H, Suzuki Y, Noda T, Tsukita Sh, and Tsukita Sa, (2005) Achlorhydria by ezrin knockdown: defects in the formation/expansion of apical canaliculi in gastric parietal cells. *J. Cell Biol.* 169:21-28.

Miyamoto T, Morita K, Takemoto D, Takeuchi K, Kitano Y, Miyakawa T, Nakayama K, Okamura Y, Sasaki H, Miyachi Y, Furuse M, and Tsukita Sh, (2005) Tight junctions in Schwann cells of peripheral myelinated axons: a lesson from claudin-19-deficient mice. *J.Cell Biol.* 169:527-538.

分子腫瘍学 (Molecular Oncology)

C. Takahashi, B. Contreras, R. T. Bronson, M. Loda and M. E. Ewen. (2004) Genetic interaction between Rb and K-ras in the control of differentiation and tumor suppression. *Mol. Cell. Biol.* 24: 10406-10415.

Ihara M, Kinoshita A, Yamada S, Tanaka H, Tanigaki A, Kitano A, Goto M, Okubo K, Nishiyama H, Ogawa O, Takahashi C, Itoharu S, Nishimune Y, Noda M, Kinoshita M. (2005) Cortical organization by the septin cytoskeleton is essential for structural and mechanical integrity of mammalian spermatozoa. *Developmental Cell* 8, 343-352.

Chiaki Takahashi, Bernardo Contreras, Tsuyoshi Iwanaga, Yujiro Takegami, Anke Bakker, Roderick T. Bronson, Makoto Noda, Massimo Loda, Jennifer L. Hunt, Mark E. Ewen. (2005) N-ras loss induces metastatic conversion of Rb-deficient neuroendocrine thyroid tumor. *Nature Genetics* Dec. 20 電子版

分子遺伝学 (Molecular Genetics)

Kanatsu-Shinohara M, Toyokuni S, Shinohara T. (2004) CD9 is a surface marker on mouse and rat male germline stem cells. *Biol Reprod*, 70: 70-75.

Kanatsu-Shinohara M, Morimoto T, Toyokuni S, and Shinohara T (2004) Regulation of mouse spermatogonial stem cell self-renewing division by the pituitary gland. *Biol Reprod*, 70: 1731-1737.

Kanatsu-Shinohara M, Toyokuni S, and Shinohara T (2004) Transgenic mice produced by retroviral transduction of male germ line stem cells in vivo. *Biol Reprod*, 71: 1202-1207.

Kanatsu-Shinohara M, Inoue K, Lee J, Yoshimoto M, Ogonuki N, Miki H, Baba S, Kato T, Kazuki Y, Toyokuni S, Toyoshima M, Niwa O, Oshimura M, Heike T, Nakahata T, Ishino F, Ogura A, and Shinohara T (2004) Generation of pluripotent stem cells from neonatal mouse testis. *Cell*, 2004 119: 1001-1012.

Kanatsu-Shinohara M, Toyokuni S, and Shinohara T (2005) Genetic selection of mouse male germline stem cells in vitro: offspring from single stem cells. *Biol Reprod*, 72: 236-240.

Chuma S, Kanatsu-Shinohara M, Inoue K, Ogonuki N, Miki H, Toyokuni S, Hosokawa M, Nakatsuji N, Ogura A, and Shinohara T (2005) Spermatogenesis from epiblast and primordial germ cells following transplantation into postnatal mouse testis. *Development*, 132: 117-122.

Kanatsu-Shinohara M, Miki H, Inoue K, Ogonuki N, Toyokuni S, Ogura A, and Shinohara T (2005) Long-term culture of mouse male germline stem cells under serum- or feeder-free conditions. *Biol Reprod*, 72: 985-991.

Kanatsu-Shinohara M, Miki H, Inoue K, Ogonuki N, Toyokuni S, Ogura A, and Shinohara T (2005) Germline niche transplantation restores fertility in infertile mice. *Hum Reprod*, 20: 2376-2382.

Kanatsu-Shinohara M, Ogonuki N, Iwano T, Lee J, Kazuki Y, Inoue K, Miki H, Takehashi M, Toyokuni S, Shinkai Y, Oshimura M, Ishino F, Ogura A, and Shinohara T (2005) Genetic and epigenetic properties of mouse male germline stem cells during long-term culture. *Development*, 132: 4155-4163.

高次脳形態学 (Morphological Brain Science)

Furuta T., Koyano K., Tomioka R., Yanagawa Y., Kaneko T (2004) GABAergic basal forebrain neurons which express receptor for neurokinin B and send axons to the cerebral cortex. *The Journal of Comparative Neurology*, vol. 473 (no.1), pp. 43-58, May 17.

Nakamura Ka, Matsushima K, Hubschle T, Nakamura Y, Hioki H, Fujiyama F, Boldogkoi Z, Konig M, Thiel H-J, Gerstberger R, Kobayashi S, Kaneko T (2004) Identification of sympathetic premotor neurons in medullary raphe regions mediating fever and other thermoregulatory functions. *The Journal of Neuroscience*, vol. 24 (no. 23), pp. 5370-5380, June 9.

Hioki H., Fujiyama F., Nakamura Ko., Wu S.-X., Matsuda W., Kaneko T (2004) Chemically specific circuit composed by vesicular glutamate transporter 3- and preprotachykinin B-producing interneurons in the rat neocortex. *Cerebral Cortex*, vol. 14 (no. 11), pp. 1266-1275, November.

Li J.-L., Tomioka R., Okamoto K., Nakamura Ko., Wu S.-X., Kaneko T., Mizuno N (2005) Efferent and afferent connections of GABAergic neurons in the supratrigeminal and the intertrigeminal regions. An immunohistochemical tract-tracing study in the GAD67-GFP knock-in mouse. *Neuroscience Research*, vol. 51 (no. 1), pp. 81-91, January.

Nakamura K., Matsumura K., Kobayashi S., Kaneko T (2005) Sympathetic premotor neurons mediating thermoregulatory functions. *Neuroscience Research*, vol.51 (no. 1), pp. 1-8, January.

Tomioka R., Okamoto K., Furuta T., Fujiyama F., Iwasato T., Yanagawa Y., Obata K., Kaneko T., Tamamaki N (2005) Demonstration of long-range GABAergic connections distributed throughout the mouse neocortex. *European Journal of Neuroscience*, vol. 21 (no. 6), pp. 1587-1600, March.

認知行動脳科学 (Integrative Brain Science)

Tabata H., Miura K., Kawano K. (2005) Anticipatory gain modulation in preparation for smooth pursuit eye movements. *J. Cognitive Neurosci.*, 17: 1962-1968

神経・細胞薬理学 (Cell Pharmacology)

Kobayashi, T., Tahara, Y., Matsumoto, M., Iguchi, M., Sano, H., Murayama, T., Arai, H., Oida, H., Yurugi-Kobayashi, T., Yamashita, J. K., Katagiri, H., Majima, M., Yokode, M., Kita, T. & Narumiya, S. (2004) Roles of thromboxane A2 and prostacyclin in the development of atherosclerosis in apoE-deficient mice. *J. Clin. Invest.*, 114, 784-794

Kunikata, T., Yamane, H., Segi, E., Matsuoka, T., Sugimoto, Y., Tanaka, S., Tanaka, H., Nagai, H., Ichikawa, A. & Narumiya, S. (2005) Suppression of allergic inflammation by the prostaglandin E receptor subtype EP3. *Nat. Immunol.* 6, 524-531

Shimizu, Y., Thumkeo, D., Keel, J., Ishizaki, T., Oshima, H., Oshima, M., Noda, Y., Matsumura, F., Taketo, M. M., and Narumiya, S. (2005) ROCK-I regulates closure of the eyelids and ventral body wall by inducing assembly of actomyosin bundles. *J Cell Biol.* 168, 941-953

Matsuoka, Y., Furuyashiki, T., Yamada, K., Nagai, T., Bito, H., Tanaka, Y., Kitaoka, S., Ushikubi, F., Nabeshima, T. & Narumiya, S. (2005) Prostaglandin E receptor EP1 controls impulsive behavior under stress. *Proc. Natl. Acad. Sci. U.S.A.*, 102, 16066-16071

Thumkeo D, Shimizu Y, Sakamoto S, Yamada S, Narumiya S. (2005) ROCK-I and ROCK-II cooperatively regulate closure of eyelid and ventral body wall in mouse embryo. *Genes Cells.*, 10, 825-34.

附属動物実験施設 (Institute of Laboratory Animals)

Nogaki F, Oida E, Kamata T, Kobayashi I, Nomura K, Suyama K, Tahara S, Ono T, Miyawaki S, Serikawa T, Yoshida H, Kita T, Muso E. (2005) Chromosomal mapping of hyperserum IgA and glomerular IgA deposition in a high IgA (HIGA) strain of DdY mice. *Kidney Int.* 68(6):2517-25.

Ji-qun C, Ishihara K, Nagayama T, Serikawa T, Sasa M. (2005) Long-lasting antiepileptic effects of levetiracetam against epileptic seizures in the spontaneously epileptic rat (SER): differentiation of levetiracetam from conventional antiepileptic drugs. *Epilepsia.* 46(9):1362-70.

Kuramoto, T., Gohma, H., Kimura, K., Wedkind, D., Hedrich, HJ., Serikawa, T. (2005) The rat pink-eyed dilution (p) mutation: An identical intragenic deletion in pink-eye dilute-coat strains and several Wistar-derived albino strains. *Mammal Genome* 16: 712-719.

Yan HD, Ji-Qun C, Ishihara K, Nagayama T, Serikawa T, Sasa M. (2005) Separation of Antiepileptogenic and Antiseizure Effects of Levetiracetam in the Spontaneously Epileptic Rat (SER). *Epilepsia.* 46(8):1170-7.

McPhee SW, Francis J, Janson CG, Serikawa T, Hyland K, Ong EO, Raghavan SS, Freese A, Leone P. (2005) Effects of AAV-2-mediated aspartoacylase gene transfer in the tremor rat model of Canavan disease. *Brain Res Mol Brain Res.* 135(1-2):112-21.

Klugmann M, Leichtein CB, Symes CW, Serikawa T, Young D, During MJ. (2005) Restoration of aspartoacylase activity in CNS neurons does not ameliorate motor deficits and demyelination in a model of Canavan disease. *Mol Ther.* 11(5):745-53.

Kuramoto T, Morimura K, Nomoto T, Namiki C, Hamada S, Fukushima S, Sugimura T, Serikawa T, Ushijima T. (2005) Sparse and wavy hair: a new model for hypoplasia of hair follicle and mammary glands on rat chromosome 17. *J Hered.* 96(4):339-45.

Kuwamura M, Muraguchi T, Matsui T, Ueno M, Takenaka S, Yamate J, Kotani T, Kuramoto T, Guenet JL, Kitada K, Serikawa T. (2005) Mutation at the *Lmx1a* locus provokes aberrant brain development in the rat. *Brain Res Dev Brain Res.* 155(2):99-106.

Mashimo T, Voigt B, Kuramoto T, Serikawa T. (2005) Rat Phenome Project: the untapped potential of existing rat strains. *J Appl Physiol.* 98(1):371-9.

Kuwamura M, Kanehara T, Tokuda S, Kumagai D, Yamate J, Kotani T, Nakane Y, Kuramoto T, Serikawa T. Immunohistochemical and morphometrical studies on myelin breakdown in the demyelination (dmy) mutant rat. (2004) *Brain Res.* 1022(1-2):110-6.

Amano T, Aihua Z, Matsubayashi H, Seki T, Serikawa T, Sasa M, Sakai N. (2004) Antiepileptic effects of single and repeated oral administrations of S-312-d, a novel calcium channel antagonist, on tonic convulsions in spontaneously epileptic rats. *J Pharmacol Sci.* 95(3):355-62.

Oida E, Nogaki F, Kobayashi I, Kamata T, Ono T, Miyawaki S, Serikawa T, Yoshida H, Kita T, Muso E. (2004) Quantitative trait loci (QTL) analysis reveals a close linkage between the hinge region and trimeric IgA dominance in a high IgA strain (HIGA) of ddY mice. *Eur J Immunol.* 34(8):2200-8.

Seki T, Matsubayashi H, Amano T, Kitada K, Serikawa T, Sasa M, Sakai N. (2004) Adenoviral gene transfer of aspartoacylase ameliorates tonic convulsions of spontaneously epileptic rats. *Neurochem Int.* 45(1):171-8.

Serikawa, T. (2004) Colourful history of Japan's rat resources. *Nature* 429:15, 2004

Kuramoto, T., Kuwamura, M., Serikawa, T. (2004) Rat neurological mutations cerebellar vermis defect and hobble are caused by mutations in the netrin-1 receptor gene *Unc5h3*. *Brain Res Mol Brain Res.* 122(2): 103-108, 2004

Oiso, N., Riddle, SR., Serikawa, T., Kuramoto, T., Spritz, RA. (2004) The Rat Ruby (R) Locus is *Rab38*: Identical Mutations in Fawn-Hooded and Tester-Moriyama Rats Derived from an Ancestral Long Evans Rat Sub-Strain. *Mamm Genome* 15(4):307 - 314, 2004

Tokuda, S., Kuramoto, T. and Serikawa, T. (2004) PCR-based genotyping of the rat *Atrnmv* mutation. *Exp Anim* 53(1): 73-76, 2004

Kuwamura, M., Ando, Y., Takada, A., Kanehara, T., Yamate, J., Kotani, T., Takashita, S., Kanbori, M., Kitada, K., and Serikawa, T. (2004) Rat mutations cvd and hob with cerebellar malformations map to Chromosome 2. *Exp Anim* 53(1): 21-26, 2004

Masui N, Mori M, Nishikawa T, Takagi Y, Asai H, Yanabe M, Yamasaki K, and Serikawa T. (2004) An allele-specific genotyping method for rat Lyst (lysosomal trafficking regulator) gene. *Exp Anim* 53(1): 77-80, 2004

徳田智子, 芹川忠夫 (2005) 特集 てんかん研究の新しい展開 てんかんモデルラット - 遺伝性てんかんモデルの開発解析研究の現状と展望 - *神経研究の進歩* 49(5): 656-664

真下知士, 左近上博司, 西森司雄, Birger Voigt, 直井国子, 鶴見東志子, 山崎賢一, 中西聡, 庫本高志, 芹川忠夫 (2005) ラットフェノームプロジェクト: ラット既存システムの体系的特性評価 *日本疾患モデル学会記録* 21: 17-21

庫本高志 (2005) 遺伝子改変マウスの「迅速・簡便・安全」なジェノタイピング法 *バイオテクノロジージャーナル* 5(4): 461-436

真下知士, 直井国子, 庫本高志, 芹川忠夫 (2005) 実験用ラットの有用性 - ナショナルバイオリソースプロジェクト「ラット」- *遺伝* 59(3):79-84

芹川忠夫 (2004) ラットのゲノム全塩基配列解読とわが国のラットリソース *蛋白質核酸酵素* 49(13): 2139-2148

血液・腫瘍内科学 (Hematology and Oncology)

Kaneko H, Hori T, Yanagita S, Kadowaki N, and Uchiyama T (2005) Introduction of OX40 ligand into lymphoma cells elicits anti-lymphoma immunity in vivo. *Exp Hematol*, 33:336-43.

内分泌・代謝内科学 (Medicine and Clinical Science)

C. Son, K. Hosoda, K. Ishihara, L. Bevilacqua, H. Masuzaki, T. Fushiki, ME. Harper, K. Nakao. (2004) Reduction of diet-induced obesity in transgenic mice overexpressing uncoupling protein 3 in skeletal muscle. *Diabetologia* 47:47-54.

T. Toyoda, T. Hayashi, L. Miyamoto, S. Yonemitsu, M. Nakano, S. Tanaka, K. Ebihara, H. Masuzaki, K. Hosoda, G. Inoue, A. Otaka, K. Sato, T. Fushiki, K. Nakao (2004) Possible involvement of the $\alpha 1$ Isoform of 5'AMP-Activated protein kinase in oxidative stress-stimulated glucose transport in skeletal muscle. *Am. J. Physiol. (Endocrinol Metab)* 287:E166-E173.

Yasoda A, Komatsu Y, Chusho H, Miyazawa T, Osasa A, Miura M, Kurihara T, Rogi T, Tanaka S, Suda M, Tamura N, Ogawa Y, Nakao K. (2004) Overexpression of CNP in chondrocytes rescues achondroplasia through a MAPK-dependent pathway. *Nat Med*. 10(1):80-6.

Li Y, Kishimoto I, Saito Y, Harada M, Kuwahara K, Izumi T, Hamanaka I, Takahashi N, Kawakami R, Tanimoto K, Nakagawa Y, Nakanishi M, Adachi Y, Garbers DL, Fukamizu A, Nakao K. (2004) Androgen contributes to gender-related cardiac hypertrophy and fibrosis in mice lacking the gene encoding guanylyl cyclase - A. *Endocrinology*. 2004 Feb;145(2):951-8.

Kawakami R, Saito Y, Kishimoto I, Harada M, Kuwahara K, Takahashi N, Nakagawa Y, Nakanishi M, Tanimoto K, Usami S, Yasuno S, Kinoshita H, Chusho H, Tamura N, Ogawa Y, Nakao K. (2004) Overexpression of brain natriuretic peptide facilitates neutrophil infiltration and cardiac matrix metalloproteinase-9 expression after acute myocardial infarction. *Circulation* ;110:3306-12.

Yokoi H, Mukoyama M, Nagae T, Mori K, Suganami T, Sawai K, Yoshioka T, Koshikawa M, Nishida T, Takigawa M, Sugawara A, and Nakao K (2004) Reduction in connective tissue growth factor by antisense treatment ameliorates renal tubulointerstitial fibrosis. *J Am Soc Nephrol*. 15: 1430-1440.

田村尚久 (2004) ナトリウム利尿ペプチド受容体とシグナル伝達. *日本臨床 62巻増刊9【臨床分子内分泌学1 心血管内分泌代謝系 上巻】*:18-22.

田村尚久, 中尾一和 (2004) ナトリウム利尿ペプチド遺伝子改変動物. *日本臨床 62巻増刊9【臨床分子内分泌学1 心血管内分泌代謝系 上巻】*:31-37.

田村尚久, 原田昌樹, 山原研一, 横井秀基, 八十田明宏, 中尾一和 (2004) ナトリウム利尿ペプチドのトランスレショナルリサーチ(展開研究). *日本臨床 62巻増刊9【臨床分子内分泌学1 心血管内分泌代謝系 上巻】*:157-163.

山下潤, 曽根正勝 (2004) ヒト ES 細胞分化誘導と移植への応用. *細胞工学* 23:1264-1267.

T. Tanaka, H. Masuzaki, K. Ebihara, Y. Ogawa, S. Yasue, H. Yukioka, H. Chusho, F. Miyanaga, T. Miyazawa, M. Fujimoto, T. Kusakabe, N. Kobayashi, T. Hayashi, K. Hosoda, K. Nakao. (2005) Transgenic expression of mutant peroxisome proliferator-activated receptor (PPAR) α in liver precipitates fasting-induced steatosis but protects against high fat diet-induced steatosis in mice. *Metabolism* 54:1490-1498.

T. Tanaka, S. Hidaka, H. Masuzaki, S. Yasue, Y. Minokoshi, K. Ebihara, H. Chusho, Y. Ogawa, T. Toyoda, K. Sato, F. Miyanaga, M. Fujimoto, T. Tomota, T. Kusakabe, N. Kobayashi, H. Tanioka, T. Hayashi, K. Hosoda, H. Yoshimatsu, T. Sakata, K. Nakao. (2005) Skeletal muscle AMPK phosphorylation parallels metabolic phenotype in leptin transgenic mice under dietary modification. *Diabetes* 54:2365-2374.

H. Iwakura, K. Hosoda, C. Son, J. Fujikura, T. Tomita, M. Noguchi, H. Ariyasu, K. Takaya, H. Masuzaki, Y. Ogawa, T. Hayashi, G. Inoue, T. Akamizu, H. Hosoda, M. Kojima, H. Itoh, S. Toyokuni, K. Kangawa, K. Nakao. (2005) Analysis of Rat Insulin Promoter-Ghrelin Transgenic Mice and Rat Glucagon Promoter-Ghrelin Transgenic Mice. *J. Biol. Chem.* 280: 15247-15256.

Nambu T, Arai H, Komatsu Y, Yasoda A, Moriyama K, Kanamoto N, Itoh H, Nakao K. (2005) Expression of the adrenomedullin gene in adipose tissue. *Regul Pept.* 132[1-3]: 17-22.

Ozasa A, Komatsu Y, Yasoda A, Miura M, Sakuma Y, Nakatsuru Y, Asai H, Itoh N, Nakao K. (2005) Complementary antagonistic actions between C-type natriuretic peptide and the MAPK pathway through FGFR-3 in ATDC5 cells. *Bone*. 36(6):1056-64.

Takahashi N, Saito Y, Kuwahara K, Harada M, Tanimoto K, Nakagawa Y, Kawakami R, Nakanishi M, Yasuno S, Usami S, Yoshimura A, Nakao K. (2005) Hypertrophic responses to cardiotrophin-1 are not mediated by STAT3, but via a MEK5-ERK-5 pathway in cultured cardiomyocytes. *J Mol Cell Cardiol.* 38(1) 185-192.

Nakanishi M, Saito Y, Kishimoto I, Harada M, Kuwahara K, Takahashi N, Kawakami R, Nakagawa Y, Tanimoto K, Yasuno S, Usami S, Li Y, Adachi Y, Fukamizu A, Garbers DL, Nakao K. (2005) Role of Natriuretic Peptide Receptor Guanylyl Cyclase-A in Myocardial Infarction Evaluated Using Genetically Engineered Mice. *Hypertension.* 46(2):441-7.

Tanimoto K, Saito Y, Hamanaka I, Kuwahara K, Harada M, Takahashi N, Kawakami R, Nakagawa Y, Nakanishi M, Adachi Y, Shirakami G, Fukuda K, Yoshimura A, Nakao K. (2005) SOCS1/JAB likely mediates the protective effect of cardiotrophin-1 against lipopolysaccharide-induced left ventricular dysfunction in vivo. *Circ J.* 69:1412-1417.

Suganami T, Mukoyama M, Mori K, Yokoi H, Koshikawa M, Sawai K, Hidaka S, Ebihara K, Tanaka T, Sugawara A, Kawachi H, Vinson C, Ogawa Y, and Nakao K. (2005) Prevention and reversal of renal injury by leptin in a new mouse model of diabetic nephropathy. *FASEB J.* 19: 127-129.

Koshikawa M, Mukoyama M, Mori K, Suganami T, Sawai K, Yoshioka T, Nagae T, Yokoi H, Kawachi H, Shimizu F, Sugawara A, and Nakao K. (2005) Role of p38 mitogen-activated protein kinase activation in podocyte injury and proteinuria in experimental nephrotic syndrome. *J Am Soc Nephrol.* 16 : 2690-2701.

曾根正勝、伊藤裕、山下潤、中尾一和 (2005) ES細胞と血管前駆細胞. *治療学* 39:26-29.

曾根正勝、伊藤裕、山下潤、中尾一和 (2005) 霊長類 ES細胞由来血管前駆細胞の同定. *細胞* 37:25-28.

循環器内科学 (Cardiovascular Medicine)

R. Shirakawa, T. Higashi, A. Tabuchi, A. Yoshioka, H. Nishioka, M. Fukuda, T. Kita, and H. Horiuchi (2004) Munc13-4 is a GTP-Rab27 binding protein regulating dense core granule secretion in platelets. *J. Biol. Chem.*, 279, 10730-10737.

Hirai M, Ono K, Morimoto T, Kawamura T, Wada H, Kita T, Hasegawa K. (2004) FOG-2 competes with GATA-4 for a transcriptional coactivator p300 and represses hypertrophic responses in cardiac myocytes. *J Biol Chem* ; 279:37640-37650.

Ehara N, Hasegawa K, Ono K, Kawamura T, Iwai-Kanai E, Morimoto T, Akao M, Adachi S, Kita T. (2004) Activators of PPAR α antagonize protection of cardiac myocytes by endothelin-1. *Biochem Biophys Res Commun.* ; 321: 345-349.

Kawamura T, Ono K, Morimoto T, Akao M, Iwai-Kanai E, Wada H, Sowa N, Kita T, Hasegawa K. (2004) Endothelin-1-dependent Nuclear Factor Activating T Lymphocytes Signaling Associates with Transcriptional Coactivator p300 in the Activation of the B Cell Leukemia-2 Promoter in Cardiac Myocytes. *Circ Res.*; 94: 1492-1499.

Kawamura T, Hasegawa K, Morimoto T, Iwai-Kanai E, Miyamoto-S, Kawase Y, Ono K, Wada H, Akao M, Kita T. (2004) Expression of p300 protects cardiac myocytes from apoptosis in vivo. *Biochem Biophys Res Commun.* ; 315: 733-8.

Yuan Z, Shioji K, Kihara Y, Takenaka H, Onozawa Y, Kishimoto C (2004) Cardioprotective effects of carvedilol on acute myocarditis. Anti-inflammatory effects associated with antioxidant property. *Am J Physiol* 286, H83-H90.

Miyamoto M, Kishimoto C, Nimata M, Nakamura H, Yodoi J (2004) Thioredoxin, a redox regulating protein, is expressed in spontaneous myocarditis in inbred strains of mice. *Int J Cardiol* 95, 315-319.

Liu W, Nakamura H, Shioji K, Tanito M, Oka S, Ahsan MK, Son A, Ishii Y, Kishimoto C, Yodoi J (2004) Thioredoxin-1 ameliorates myosin-induced autoimmune myocarditis by suppressing chemokine expressions and leukocyte chemotaxis in mice. *Circulation* 110, 1276-1283.

Shioji K, Yuan Z, Kita T, Kishimoto C (2004) Immunoglobulin treatment suppressed adoptively transferred autoimmune myocarditis in severe combined immunodeficient mice. *Am J Physiol Heart Circ Physiol* 287, H2619-H2625.

E. Ishii, I. Ueda, R. Shirakawa, K. Yamamoto, H. Horiuchi, S. Ohga, K. Furuno, A. Morimoto, M. Imayoshi, Y. Ogata, M. Sako, K. Koike, A. Sakata, H. Takada, T. Hara, S. Imashuku, T. Sasazuki and M. Yasukawa (2005) Genetic subtypes of familial hemophagocytic lymphohistiocytosis: correlations with clinical features and cytotoxic T lymphocyte/natural killer cell functions. *Blood* 105: 3442-3448

R. Shirakawa, T. Higashi, H. Kondo, A. Yoshioka, T. Kita, H. Horiuchi (2005) Purification and functional analysis of a Rab27 effector Munc13-4 using a semi-intact platelet dense-granule secretion assay. *Methods Enzymol.* 403, 778-788

Yuan Z, Nimata M, Okabe T, Shioji K, Hasegawa K, Kita T, Kishimoto C (2005) Olmesartan, a novel angiotensin II receptor type 1 antagonist, suppressed cytotoxic myocardial injury in autoimmune heart failure. *Am J Physiol* 289 : H1147-H1152.

Nimata M, Okabe T, Hattori M, Yuan Z, Shioji K, Kishimoto C (2005) MCI-186 (edaravone), a novel free radical scavenger, protect against acute autoimmune myocarditis in rats. *Am J Physiol* 289 : H2514-H2518.

Okabe T, Kishimoto C, Shimada K, Murayama T, Yokode M, Kita T (2005) Effects of immunoglobulin administration on experimental atherosclerosis in apolipoprotein E-deficient mice at subsequent stage. *Circ J* 69:1543-1546.

岡部孝明、岸本千晴、村山敏典、横出正之、北徹 (2005) 運動による実験的動脈硬化の抑制効果に関する検討. *呼吸と循環* 53、 635-640.

岡部孝明、岸本千晴、二又正臣、服部美樹、袁祖貽、塩路圭介、北徹 (2005) ラット自己免疫性心筋炎における MCI-186(エダラボン)の心筋保護効果に関する検討. *心臓* 37、 570-575.

岡部孝明、岸本千晴、村山敏典、横出正之、北徹 (2005) 免疫グロブリンの後期大量投与による実験的動脈硬化の抑制効果に関する検討.

Prog Med 25:809-1812.

二又正臣、岸本千晴、袁祖貽、塩路圭介、北徹、佐野秀人、許揚、横出正之 (2005) 免疫グロブリンの実験的動脈硬化症に対する効果。医学のあゆみ 215:219-220.

岸本千晴 (2005) 発症における炎症、免疫学的関与について問う Heart View 9(3). 50-53.

消化器内科学 (Gastroenterology and Hepatology)

Fukui T, Okazaki K, Tamaki H, Kawasaki K, Matsuura M, Asada M, Nishi T, Uchida K, Iwano M, Ohana M, Hiai H, Chiba T (2004) Immuno-genetic analysis of gastric MALT lymphoma-like lesions induced by Helicobacter pylori infection in neonatally thymectomized mice. Lab Invest 84:485-492.

Fujii S, Fujimori T, Kawamata H, Takada J, Kitajima K, Omotehara F, Kaihara T, Kusaka T, Ichikawa K, Ohkura Y, Ono Y, Imura J, Yamaoka S, Sakamoto C, Ueda Y, Chiba T (2004) Development of colonic neoplasia in p53 deficient mice with experimental colitis induced by dextran sulfate sodium. Gut 53:710-716.

Wada M, Yazumi S, Ito Y, Chiba T (2004) Frequent hypermethylation of RUNX3 gene in human biliary and pancreatic cancer cells. Oncogene 23:2401-2407.

Kanda N, Seno H, Konda Y, Marusawa H, Kanai M, Nakajima T, Kawashima T, Nanakin A, Sawabu T, Uenoyama Y, Sekikawa A, Kawada M, Suzuki K, Kayahara T, Fukui H, Sawada M, Chiba T (2004) STAT3 is constitutively activated and supports cell survival in association with survivin expression in gastric cancer cells. Oncogene 23:4921-4929.

Chiba T (2004) What is responsible for the development of the distinctive pattern of gastritis induced by Helicobacter pylori infection? (Editorial) J Gastroenterol 39:402-403.

Watanabe T, Chiba T, Wakatsuki Y (2004) Portal vein tolerance and development of regulatory CD4 T cells in the liver. Mucosal Immunol Update 4:4-6.

Sakura C, Hagiwara A, Miyagawa K, Nakashima S, Yoshikawa T, Kin S, Nakase Y, Ito K, Yamagishi H, Yazumi S, Chiba T, Ito Y (2005) Frequent downregulation of the runt domain transcription factors RUNX1, RUNX3 and their cofactor C/EBPβ in gastric cancer. Int J Cancer 113:221-228.

Suzuki K, Fukui H, Kayahara T, Sawada M, Seno H, Hiai H, Kageyama R, Okano H, Chiba T (2005) Hes1-deficient mice show precocious differentiation of Paneth cells in the small intestine. Biochem Biophys Res Commun 328:348-52.

Sekikawa A, Fukui H, Fujii S, Takeda J, Nanakin A, Hisatsune H, Seno H, Takasawa S, Okamoto H, Fujimori T, Chiba T (2005) REG 1α protein may function as a trophic and/or anti-apoptotic factor in the development of gastric cancer. Gastroenterology 128:642-53.

Matsuura M, Okazaki K, Nishio A, Nakase H, Tamaki H, Uchida K, Nishi T, Asada M, Kawasaki K, Fukui T, Yoshizawa H, Ohashi S, Inoue S, Kawanami C, Hiai H, Tabata Y, Chiba T (2005) Therapeutic effects of rectal administration of basic fibroblast growth factor on experimental murine colitis. Gastroenterology 128:975-986.

Watanabe T, Yamori M, Kita T, Chiba T, Wakatsuki Y (2005) CD4+CD25+ T cells regulate colonic localization of CD4 T cells reactive to a microbial antigen. Inflamm Bowel Dis. 11:541-550.

Sekikawa A, Fukui H, Fujii S, Nanakin A, Kanda N, Uenoyama Y, Sawabu T, Hisatsune H, Kusaka T, Ueno S, Nakase H, Seno H, Fujimori T, Chiba T (2005) Possible role of REG 1α protein in ulcerative colitis and colitic cancer. Gut 54:1437-1444.

Kawasaki K, Nishio A, Nakamura H, Uchida K, Fukui T, Ohana M, Yoshizawa H, Ohashi S, Tamaki H, Matsuura M, Asada M, Nishi T, Nakase H, Toyokuni S, Lui W, Yodoi J, Okazaki K, Chiba T (2005) Helicobacter felis- induced gastritis was suppressed in mice overexpressing thioredoxin-1. Lab Invest 85:1104-1117.

Ko K, Yamazaki S, Nakamura K, Nishioka T, Hirota K, Yamaguchi T, Shimizu J, Nomura T, Chiba T, Sakaguchi S (2005) Treatment of advanced tumors with agonistic anti-GITR mAb and its effects on tumor-infiltrating Foxp3+CD25+CD4+ regulatory T cells. J Exp Med 202:885-891.

加齢医学 (Geriatric Medicine)

Masashi Yamori, Masaru Yoshida, Tomohiro Watanabe, Yasuhiko Shirai, Tadahiko Iizuka, Toru Kita and Yoshio Wakatsuki (2004) Antigenic activation of Th1 cells in the gastric mucosa enhance dysregulated apoptosis and turnover of the epithelial cells Biochem Biophysical Res Comm 316:1015-1021

Tomohiro Watanabe, Tsutomu Chiba, and Yoshio Wakatsuki (2004) Portal Vein Tolerance and Development of Regulatory CD4 T Cells in the Liver Mucosal Immunology Update 2004, vol4

Zhuge X, Murayama T, Arai H, Yamauchi R, Tanaka M, Shimaoka T, Yonehara S, Kume N, Yokode M, and Kita T. (2004) CXCL16 is a novel angiogenic factor for human umbilical vein endothelial cells. Biochemical and Biophysical Research Communications, 331: 1295-1300.

Ohashi H, Takagi H, Koyama S, Oh H, Watanabe D, Antonetti DA, Matsubara T, Nagai K, Arai H, Kita T, Honda Y. (2004) Alterations in expression of angiotensin II receptors and the Tie-2 receptor in the retina of streptozotocin induced diabetic rats. Mol Vis. 10:608-617.

Kobayashi T, Tahara Y, Matsumoto M, Iguchi M, Sano H, Murayama T, Arai H, Oida H, Yurugi-Kobayashi T, Yamashita JK, Katagiri H, Majima M, Yokode M, Kita T, Narumiya S. (2004) Roles of thromboxane A(2) and prostacyclin in the development of atherosclerosis in apoE-deficient mice. J Clin Invest 114:784-94.

- Xu, Y., Arai, H., Zhuge, X., Sano, H., Murayama, T., Yoshimoto, M., Heike, T., Nakahata, T., Nishikawa, S., Kita, T., Yokode, M. (2004) Role of bone marrow-derived progenitor cells in cuff-induced vascular injury in mice. *Arterioscler Thromb Vasc Biol* 24:477-482.
- Ohashi S, Abe H, Takahashi T, Yamamoto Y, Takeuchi M, Arai H, Nagata K, Kita T, Okamoto H, Yamamoto H, Doi T. (2004) Advanced glycation end products increase collagen-specific chaperone protein in mouse diabetic nephropathy. *J Biol Chem.* 279:19816-19823.
- Abe H, Matsubara T, Iehara N, Nagai K, Takahashi T, Arai H, Kita T, Doi T. (2004) Type IV collagen is transcriptionally regulated by Smad1 under advanced glycation end product (AGE) stimulation. *J Biol Chem.* 279:14201-14206.
- Ohashi H, Takagi H, Koyama S, Oh H, Watanabe D, Antonetti DA, Matsubara T, Nagai K, Arai H, Kita T, Honda Y. (2004) Alterations in expression of angiopoietins and the Tie-2 receptor in the retina of streptozotocin induced diabetic rats. *Mol Vis.* 10:608-617.
- Kobayashi T, Tahara Y, Matsumoto M, Iguchi M, Sano H, Murayama T, Arai H, Oida H, Yurugi-Kobayashi T, Yamashita JK, Katagiri H, Majima M, Yokode M, Kita T, Narumiya S. (2004) Roles of thromboxane A(2) and prostacyclin in the development of atherosclerosis in apoE-deficient mice. *J Clin Invest* 114:784-94.
- Xu, Y., Arai, H., Zhuge, X., Sano, H., Murayama, T., Yoshimoto, M., Heike, T., Nakahata, T., Nishikawa, S., Kita, T., Yokode, M. (2004) Role of bone marrow-derived progenitor cells in cuff-induced vascular injury in mice. *Arterioscler Thromb Vasc Biol* 24:477-482.
- Ohashi S, Abe H, Takahashi T, Yamamoto Y, Takeuchi M, Arai H, Nagata K, Kita T, Okamoto H, Yamamoto H, Doi T. (2004) Advanced glycation end products increase collagen-specific chaperone protein in mouse diabetic nephropathy. *J Biol Chem.* 279:19816-19823.
- Abe H, Matsubara T, Iehara N, Nagai K, Takahashi T, Arai H, Kita T, Doi T. (2004) Type IV collagen is transcriptionally regulated by Smad1 under advanced glycation end product (AGE) stimulation. *J Biol Chem.* 279:14201-14206.
- Yamauchi R, Tanaka M*, Kume N, Minami M, Kawamoto T, Togi K, Shimaoka T, Takahashi S, Yamaguchi J, Nishina T, Kitaichi M, Komeda M, Manabe T, Yonehara S and Kita T.(2004) Up-regulation of SR-PSOX/CXCL16 and recruitment of CD8⁺ T cells in cardiac valves during inflammatory valvular heart disease. *Arterioscler Thromb Vasc Biol.* 24: 282-287.
- Togi K, Kawamoto T, Yamauchi R, Yoshida Y, Kita T and Tanaka M (2004) Role of HAND1/eHAND in the dorso-ventral patterning and interventricular septum formation in the embryonic heart. *Mol. Cell. Biol.* 24:4627-4635.
- Fukumoto N, Shimaoka T, Fujimura H, Sakoda S, Tanaka M, Kita T and Yonehara S (2004) Critical roles of CXC chemokine ligand 16/ SR-PSOX in the pathogenesis of both acute and adoptive transfer experimental autoimmune encephalomyelitis. *J.Immunol*, 173:1620-1627.
- 若月芳雄 (2004) 消化管防御と免疫応答を探る 分子消化器病学 1 (3):6-11,
- 若月芳雄 (2004) 胃粘膜上皮の再生における宿主免疫炎症反応の役割とその加齢変化 消化器科 39 (6) Dec.602-605 (科学評論社)
- Toshiyuki Itoh, Hiroshi Seno, Toru Kita, Tsutomu Chiba, Yoshio Wakatsuki (2005) Th response to Helicobacter pylori differs between patients with gastric ulcer and duodenal ulcer *Scand J Gastroenterology* ,40:641-647
- Tomohiro Watanabe, Masashi Yamori, Toru Kita, Tsutomu Chiba, and Yoshio Wakatsuki (2005) CD4+CD25+ T cells regulate colonic localization of CD4 T cells reactive to a microbial antigen. *Inflammatory Bowel Diseases*, (6) 541-550
- Inada A, Nagai K, Arai H, Miyazaki J, Nomura K, Kanamori H, Toyokuni S, Yamada Y, Bonner-Weir S, Weir GC, Fukatsu A, and Seino Y. (2005) Establishment of a diabetic mouse model with progressive diabetic nephropathy. *Am J Pathol*, 167: 327-336.
- Nagai K, Matsubara T, Mima A, Sumi E, Kanamori H, Iehara N, Fukatsu A, Yanagita M, Nakano T, Ishimoto Y, Kita T, Doi T, and Arai H.(2005) Gas6 induces Akt/mTOR-mediated mesangial hypertrophy in diabetic nephropathy. *Kidney Int.* 68: 552-561.
- Tanaka M, Arai H, Liu N, Nogaki F, Nomura K, Kasuno K, Oida E, Kita T, and Ono T. (2005) Role of coagulation factor Xa and protease-activated receptor 2 in human mesangial cell proliferation. *Kidney Int.* 67:2123-2133.
- Takahashi T, Abe H, Arai, H, Matsubara T, Nagai K, Matsuura M, Iehara N, Yokode M, Nishikawa S, Kita T, and Doi T (2005) Activation of STAT3/Smad1 is a key signaling pathway for progression to glomerulosclerosis in experimental glomerulonephritis. *J Biol Chem* 280:7100-7106.
- Zhugue X, Kataoka H, Tanaka M, Murayama T, Kawamoto T, Sano H, Togi K, Yamauchi R, Ueda Y, Xu Y, Nishikawa S, Kita T, Yokode M (2005) Expression of the novel Snai-related zinc-finger transcription factor gene Smuc during mouse development. *Int J Mol Med*, 15:945-948.
- Zhugue X, Murayama T, Arai H, Yamauchi R, Tanaka M, Shimaoka T, Yonehara S, Kume N, Yokode M and Kita T (2005) CXCL16 is a novel angiogenic factor for human umbilical vein endothelial cells. *Biochem Biophys Res Commun*, 331:1295-1300.
- 伊藤俊之、若月芳雄、千葉勉 (2005) Helicobacter pylori 技術講座 No40. 臨床で使える消化管免疫機能検査 *Helicobacter Research* ,9(1):2-6
- 若月芳雄 (2005) ヘリコバクテラ・ピロリの免疫学 ヘリコバクテラ・ピロリ感染症の研究と臨床の進歩 化学療法の領域, 7, 41-45
- 若月芳雄 (2005) H.pylori 感染胃粘膜における炎症・免疫反応 H.pylori 除菌と消化性潰瘍・関連疾患、基礎臨床のアップデート *日本臨床*, 11:150-155
- 若月芳雄、家森正志、吉田優、伊藤俊之、千葉勉 (2005) H.pylori 胃炎の多様性、予後に果たす宿主の局所免疫応答の役割 *日本ヘリコバクテラ学会誌*, vol6,no2 44-48

糖尿病・栄養内科学 (Diabetes and Clinical Nutrition)

- Yamada Y, Seino Y. (2004) Physiology of GIP--a lesson from GIP receptor knockout mice. *Horm Metab Res.* 36(11-12):771-4.

- Nagashima K, Takahashi A, Ikeda H, Hamasaki A, Kuwamura N, Yamada Y, Seino Y. (2004) Sulfonylurea and non-sulfonylurea hypoglycemic agents: pharmacological properties and tissue selectivity. *Diabetes Res Clin Pract.* 66 Suppl 1:S75-8.
- Mukai E, Kume N, Hayashida K, Minami M, Yamada Y, Seino Y, Kita T. (2004) Heparin-binding EGF-like growth factor induces expression of lectin-like oxidized LDL receptor-1 in vascular smooth muscle cells. *Atherosclerosis.* 176(2):289-96.
- Tsukiyama K, Yamada Y, Miyawaki K, Hamasaki A, Nagashima K, Hosokawa M, Fujimoto S, Takahashi A, Toyoda K, Toyokuni S, Oiso Y, Seino Y. (2004) Gastric inhibitory polypeptide is the major insulinotropic factor in K(ATP) null mice. *Eur J Endocrinol.* 151(3):407-12.
- Inada A, Hamamoto Y, Tsuura Y, Miyazaki J, Toyokuni S, Ihara Y, Nagai K, Yamada Y, Bonner-Weir S, Seino Y. (2004) Overexpression of inducible cyclic AMP early repressor inhibits transactivation of genes and cell proliferation in pancreatic beta cells. *Mol Cell Biol.* 24(7):2831-41.
- Zhou H, Yamada Y, Tsukiyama K, Miyawaki K, Hosokawa M, Nagashima K, Toyoda K, Naitoh R, Mizunoya W, Fushiki T, Kadowaki T, Seino Y. (2005) Gastric inhibitory polypeptide modulates adiposity and fat oxidation under diminished insulin action. *Biochem Biophys Res Commun.* 335(3):937-42.
- Shimono D, Fujimoto S, Mukai E, Takehiro M, Nabe K, Radu RG, Shimodahira M, Kominato R, Aramaki Y, Nishi Y, Funakoshi S, Yamada Y, Seino Y. (2005) ATP enhances exocytosis of insulin secretory granules in pancreatic islets under Ca²⁺-depleted condition. *Diabetes Res Clin Pract.* 69(3):216-23.
- Inada A, Nagai K, Arai H, Miyazaki J, Nomura K, Kanamori H, Toyokuni S, Yamada Y, Bonner-Weir S, Weir GC, Fukatsu A, Seino Y. (2005) Establishment of a diabetic mouse model with progressive diabetic nephropathy. *Am J Pathol.* 167(2):327-36.
- Ueno H, Yamada Y, Watanabe R, Mukai E, Hosokawa M, Takahashi A, Hamasaki A, Fujiwara H, Toyokuni S, Yamaguchi M, Takeda J, Seino Y. (2005) Nestin-positive cells in adult pancreas express amylase and endocrine precursor Cells. *Pancreas.* 31(2):126-31.
- Takehiro M, Fujimoto S, Shimodahira M, Shimono D, Mukai E, Nabe K, Radu RG, Kominato R, Aramaki Y, Seino Y, Yamada Y. (2005) Chronic exposure to beta-hydroxybutyrate inhibits glucose-induced insulin release from pancreatic islets by decreasing NADH contents. *Am J Physiol Endocrinol Metab.* 288(2):E372-80.
- Radu RG, Fujimoto S, Mukai E, Takehiro M, Shimono D, Nabe K, Shimodahira M, Kominato R, Aramaki Y, Nishi Y, Funakoshi S, Yamada Y, Seino Y. (2005) Tacrolimus suppresses glucose-induced insulin release from pancreatic islets by reducing glucokinase activity. *Am J Physiol Endocrinol Metab.* 288(2):E365-71.

発達小児科学 (Pediatrics)

- Harazaki M, Kawai Y, Su L, Hamazaki Y, Nakahata T, Minato N, Hattori M. (2004) Specific recruitment of SPA-1 to the immunological synapse: involvement of actin-bundling protein actinin. *Immunol Lett.* 92(3):221-6. PMID: 15081616 [PubMed - indexed for MEDLINE]
- Yasumi T, Katamura K, Yoshioka T, Meguro TA, Nishikomori R, Heike T, Inobe M, Kon S, Uede T, Nakahata T. (2004) Differential requirement for the CD40-CD154 costimulatory pathway during Th cell priming by CD8 alpha+ and CD8 alpha- murine dendritic cell subsets. *J Immunol.* 172(8):4826-33.
- Heike T, Nakahata T. (2004) Stem cell plasticity in the hematopoietic system. *Int J Hematol.* 79(1):7-14.
- 中畑龍俊(2004) 臍帯血移植. *治療学* 38(10):1083-1087
- 中畑龍俊(2004) 造血幹細胞. *分子リウマチ* 1(3):227-232
- 神戸直智, 宮地良樹, 平松英文, 中畑龍俊(2004) ヒト肥満細胞のマウス生体内での分化・増殖. *アレルギー科* 17(3):249-255
- 中畑龍俊(2005) 再生医療の現状と問題点. *炎症・再生* 24(2):84-91
- 中畑龍俊(2005) 造血幹細胞移植と再生医療. *再生医療* 3(1):33-41
- 伊藤仁也, 中畑龍俊(2005) 臍帯血造血幹細胞の ex vivo 増幅. *細胞* 36(2):48-51
- Yoshimoto M, Chang H, Shiota M, Kobayashi H, Umeda K, Kawakami A, Heike T, Nakahata T. (2005) Two different roles of purified CD45+c-Kit+Sca-1+Lin- cells after transplantation in muscles. *Stem Cells.* 23(5):610-8.
- Nagato M, Heike T, Kato T, Yamanaka Y, Yoshimoto M, Shimazaki T, Okano H, Nakahata T. (2005) Prospective characterization of neural stem cells by flow cytometry analysis using a combination of surface markers. *J Neurosci Res.* 2005 May 15;80(4):456-66.
- Iida M, Heike T, Yoshimoto M, Baba S, Doi H, Nakahata T. (2005) Identification of cardiac stem cells with FLK1, CD31, and VE-cadherin expression during embryonic stem cell differentiation. *FASEB J.* 19(3):371-8.
- 中畑龍俊(2005) 幹細胞と再生医療. *腎と透析* 59(3): 445-452.
- 中畑龍俊, 伊藤仁也(2005) 治療法をめぐる最近の進歩 臍帯血造血幹細胞の体外増幅システムとその応用. *医学のあゆみ 別冊血液疾患 Ver.3*:559-563
- 平松英文, 藤野寿典, 平家俊男, 中畑龍俊(2005) NOD/SCID/ cnull マウスを用いた幹細胞分化の in vivo 解析モデル. *日本小児血液学会雑誌* 19(3):171-174
- 神戸直智, 宮地良樹, 中畑龍俊(2005) 肥満細胞の分化機構と病態的役割. *日本小児血液学会雑誌* 19(3):113-122
- 中畑龍俊(2005) 造血系幹細胞. *ティッシュエンジニアリング* 2005 号:11-17

放射線腫瘍学・画像応用治療学 (Radiation Oncology and Image-Applied Therapy)

Harada H, Kizaka-Kondoh S, and Hiraoka M. (2005) Optical Imaging of Tumor Hypoxia and Evaluation of Efficacy of a Hypoxia-targeting drug in living animals. *Mol. Imaging*, 4(3):182-193.

Ogura M, Shibata T, Yi J, Liu J, Qu R, Harada H, Hiraoka M. (2005) A tumor-specific gene therapy strategy targeting dysregulation of the VHL/HIF pathway in renal cell carcinomas. *Cancer Sci*. 96(5):288-94.

Liu J, Qu R, Ogura M, Shibata T, Harada H, Hiraoka M. (2005) Real-time imaging of hypoxia-inducible factor-1 activity in tumor xenografts. *J Radiat Res (Tokyo)*. 46(1):93-102.

近藤科江、原田浩、平岡真寛 (2005) 革新的診断・治療へのアプローチ; 膜透過性・標的特異性を有する融合タンパク質を用いたイメージング、ターゲティング *BioClinica* 20(1), 53-58.

近藤科江、平岡真寛、原田浩 (2005) がん治療における HIF-1 と Tumor Hypoxia *Cancer Frontier* 7: 77-86.

肝胆膵・移植外科学 (Hepatobiliary Pancreatic Surgery and Transplantation)

Taura K, Y. Yamamoto, A. Nakajima, K. Hata, H. Uchinami, K. Yonezawa, E. Hatano, N. Nishino, and Y. Yamaoka (2004) Impact of novel histone deacetylase inhibitors, CHAP31 and FR901228 (FK228), on adenovirus-mediated transgene expression. *J Gene Med* 6 (5):526-536.

Harada N, E. Hatano, N. Koizumi, T. Nitta, M. Yoshida, N. Yamamoto, D. A. Brenner, and Y. Yamaoka. (2004) Akt activation protects rat liver from ischemia-reperfusion injury. *J Surg Res* 121 (2):159-170.

Hatano E, A. Tanaka, A. Kanazawa, S. Tsuyuki, S. Tsunekawa, S. Iwata, R. Takahashi, B. Chance, and Y. Yamaoka. (2004) Inhibition of tumor necrosis factor-induced apoptosis in transgenic mouse liver expressing creatine kinase. *Liver Int* 24 (4):384-393.

Koizumi N, Hatano E, Nitta T, Tada M, Harada N, Taura K, Ikai I, Shimahara Y. (2005) Blocking of PI3K/Akt pathway enhances apoptosis induced by SN-38, an active form of CPT-11, in human hepatoma cells. *Int J Oncol*. May; 26 (5):1301-6.

Suetsugu H, Y. Iimuro, T. Uehara, T. Nishio, N. Harada, M. Yoshida, E. Hatano, G. Son, J. Fujimoto, and Y. Yamaoka. (2005) Nuclear factor κ B inactivation in the rat liver ameliorates short term total warm ischaemia/reperfusion injury. *Gut* 54 (6):835-842.

婦人科学・産科学 (Gynecology and Obstetrics)

Kakui K, Itoh H, Sagawa N, Yura S, Takemura M, Kawamura M and Fujii S (2005) Experimental Transplantation Study for Possible Transformation of Bone Marrow Cells in the Mouse Placenta. *Placenta*, 26:678-685.

Yura S, Itoh H, Sagawa N, Yamamoto H, Masuzaki H, Nakao K, Kawamura M, Takemura M, Kakui K, Ogawa Y, Fujii S (2005) Role of premature leptin surge in obesity resulting from intrauterine undernutrition. *Cell Metab*, 1;371-378.

泌尿器科学 (Urology)

Yoshida T, Kinoshita H, Segawa T, Nakamura E, Inoue T, Shimizu Y, Kamoto T, Ogawa O (2005) Antiandrogen bicalutamide promotes tumor growth in a novel androgen-dependent prostate cancer xenograft model derived from a bicalutamide-treated patient. *Cancer Res*. 2005 Nov 1;65(21):9611-6.

心臓血管外科学 (Cardiovascular Surgery)

Doi K, Hasegawa K, Fujita M, Yamazato A, Yamanaka K, Watanabe M, Tambara K, Komeda M.(2004) Clinical characteristics relevant to myocardial cell apoptosis: analysis of pericardial fluid. *Interact Cardiovas Thorac Surg*(Interactive Cardiovascular and Thoracic Surgery) 3(2):359-362

Soga Y, Takai S, Koyama T, Okamoto Y, Ikeda T, Nishimura K, Miyazaki M, Komeda M.(2004) Attenuation of adhesion formation after cardiac surgery with a chymase inhibitor in a hamster model. *J Thorac Cardiovasc Surg*. 127(1):72-78

Yamauchi R, Tanaka M, Kume N, Minami M, Kawamoto T, Togi K, Shimaoka T, Takahashi S, Yamaguchi J, Nishina T, Kitaichi M, Komeda M, Manabe T, Yonehara S, Kita T.(2004) Upregulation of SR-PSOX/CXCL16 and recruitment of CD8+ T cells in cardiac valves during inflammatory valvular heart disease. *Arterioscler Thromb Vasc Biol*. 24(2):282-287

Tambara K, Fujita M, Miyamoto S, Doi K, Nishimura K, Komeda M.(2004) Pericardial fluid level of heart-type cytoplasmic fatty acid-binding protein (H-FABP) is an indicator of severe myocardial ischemia. *Internal Journal of Cardiology*(Int J Cardiol). 93(2-3):281-284

Tambara K, Fujita M, Sumita Y, Miyamoto S, Sekiguchi H, Eiho S, Komeda M.(2004) Beneficial effect of candesartan treatment on cardiac autonomic nervous activity in patients with chronic heart failure: simultaneous recording of ambulatory electrocardiogram and posture. *Clin Cardiol*(Clinical Cardiology) 27(5):300-303

Tambara K, Tabata Y, Komeda M.(2004) Factors related to the efficacy of skeletal muscle cell transplantation and future approaches with control-released cell growth factors and minimally invasive surgery. *Int J Cardiol*(Internal Journal of Cardiology) 95(Suppl.1):S13-S15

Okumura H, Nagaya N, Itoh T, Okano I, Hino J, Mori K, Tsukamoto Y, Ishibashi-Ueda H, Miwa S, Tambara K, Toyokuni S, Yutani C, Kangawa

K.(2004) Adrenomedullin infusion attenuates myocardial ischemia/reperfusion injury through the phosphatidylinositol 3-kinase/Akt-dependent pathway. *Circulation*. 109(2):242-248

Miyamoto S, Fujita M, Tambara K, Sekiguchi H, Eiho S, Hasegawa K, Tamaki S.(2004) Circadian variation of cardiac autonomic nervous activity is well preserved in patients with mild to moderate chronic heart failure: effect of patient position. *Int J Cardiol(International Journal of Cardiology)*. 93(2-3):247-252

Miwa S, Yamazaki K, Suong-Hyu Hyon, Komeda M.(2004) A novel method of 'preparative' myocardial protection using green tea polyphenol in oral uptake. *Interact Cardiovasc Thorac Surg (Interactive Cardiovascular and Thoracic Surgery)* 3(4):612-615

Ueyama K, Bing G, Tabata Y, Ozeki M, Doi K, Nishimura K, Suma H, Komeda M.(2004) Development of biologic coronary artery bypass grafting in a rabbit model: Revival of a classic concept with modern biotechnology. *J Thorac Cardiovasc Surg (The Journal of Thoracic and Cardiovascular Surgery)*. 127(6):1608-1615.

Ikai A, Shirai M, Nishimura K, Ikeda T, Kameyama T, Ueyama K, Komeda M.(2004) Hypoxic pulmonary vasoconstriction disappears in a rabbit model of cavopulmonary shunt. *J Thorac Cardiovasc Surg*. 127(5):1450-1457

Ueyama K, Nishimura K, Nishina T, Nakamura T, Ikeda T, Komeda M. PMEA coating of pump circuit and oxygenator may attenuate the early systemic inflammatory response in cardiopulmonary bypass surgery. *ASAIO J(ASAIO Journal)* 2004. 50(4):369-372

Nakajima H, Sakakibara Y, Tambara K, Iwakura A, Doi K, Marui A, Ueyama K, Ikeda T, Tabata Y, Komeda M.(2004) Therapeutic angiogenesis by the controlled release of basic fibroblast growth factor for ischemic limb and heart injury:toward safety and minimal invasiveness. *J Artif Organs(The Japanese Society for Artificial Organs)*. 7(2):58-61

Yamazaki K, Miwa S, Ueda K, Tanaka S, Toyokuni S, Oriyanhan W(= Unimonh O), Nishimura K, Komeda M.(2004) Prevention of myocardial reperfusion injury by poly(ADP-ribose)synthetase inhibitor,3-aminobenzamide, in cardioplegic solution:in vitro study of isolated rat heart model. *Eur J Cardiothorac Surg (European Journal of Cardio-Thoracic Surgery)* 26(2):270-275

Tsuneyoshi H, Nishina T, Nomoto T, Kanemitsu H, Kawakami R, Oriyanhan W(= Unimonh O), Nishimura K, Komeda M.(2004) Atrial natriuretic peptide helps prevent late remodeling after left ventricular aneurysm repair. *Circulation*. 110(11 Suppl 1):II174-179

Kanemitsu A, Marui A, Yamamoto S, Ozeki M, Hirano Y, Yamamoto M, Ogawa O, Komeda M, Tabata Y.(2004) Type I collagen can function as a reservoir of basic fibroblast growth factor. *J Control Release*. 99(2):281-292

Torrent-Guasp F, Kocica MJ, Corno A, Komeda M, Cox J, Flotats A, Ballester-Rodes M, Carreras-Costa F.(2004) Systolic ventricular filling. *Eur J Cardio-Thorac Surg*. 25(3):376-386

Horii T, Tambara K, Nishimura K, Suma H, Komeda M.(2004) Residual fibrosis affects a long-term result of left ventricular volume reduction surgery for dilated cardiomyopathy in a rat experimental study. *Eur J Cardio-Thorac Surg*. 26(6):1174-1179

Ueyama K, Nishimura K, Ikai A, Koyama T, Nishina T, Ikeda T, Komeda M.(2004) Pharmacological assessment of composite arterial conduits using angiography early in the postoperative period *Jpn J Thorac Cardiovasc Surg (The Japanese Journal of Thoracic and cardiovascular surgery)* 52(6):279-285

小山忠明、中島博之、米田正始 (2004) 拡張型心筋症に対する左室形成術-心筋束構築の温存を目指して- 外科治療 91(5):619-620

小山忠明、米田正始 (2004) 『心筋症の外科手術』 心臓移植まで至らずとも延命できる治療法 心臓をまもる 1(407)

米田正始 (2004) 心臓血管外科の今日と明日 -難症例・重症例へのとりくみ- (平成 14 年度第 3 回奈良県医師会生涯教育講座) 奈医報 17(1):55-57

丹原圭一、藤田正俊、田畑泰彦、米田正始 (2004) ゼラチン水和ゲルによる徐放化システムを用いた bFGF (塩基性線維芽細胞増殖因子) の今後の展望 -動物実験から臨床応用へ- *Cardiovascular Med-Surg* 6(3):351-357

廣瀬圭一、丸井 晃、新井善雄、洞井和彦、池田 義、田畑泰彦、米田正始 (2004) bFGF を用いた血管新生治療-実験の結果より- *Cardiovascular Med-Surg* 6(3):407-410

丸井 晃 (2004) 虚血下肢に対する血管新生療法の現況、問題点について -今後の望ましい臨床試験像とは- *Cardiovascular Med-Surg* 6(3):410-413

中島博之、小山忠明、植山浩二、榊原 裕、丹原圭一、福岡正平、大野暢久、仁科 健、池田 義、西村和修、米田正始 (2004) 虚血性難治性心不全に対するジオメトリ志向の左室形成術と再生療法 従来の治療限界を超える新たな試み *日本冠疾患学会雑誌* 10(2):70-73

大野暢久、中島博之、平尾慎吾、小山忠明、根本慎太郎、仁科 健、池田 義、米田正始 (2004) 重症虚血性心筋症例に対する外科治療より包括的術式を求めて *日本冠疾患学会雑誌* 10(2):93-96

鷹羽浄頭、米田正始 (2004) 冠動脈インターベンションと DES-DES 時代の再生医療- *Coronary Intervention* 3(5):96-102

徳安達士、喜多村 直、坂口元一、米田正始 (2004) 仮想心臓モデルとハプティックデバイスによる心筋触診訓練システムの開発 計測自動制御学会論文集 40(2):148-154

福岡正平、米田正始 (2004) 虚血性僧帽弁逆流の治療法 *Heart View* 8(12):72-79

米田正始 (2004) 重症虚血や心不全に対する再生医療 京都大学大学院医学研究科・医学部付属病院・再生医科学研究所 平成 16 年度第 1 回 21 世紀 COE セミナー 組織工学をベースとした再生医療の最前線 主催：京都大学 21 世紀 COE プログラム 「融合的移植再生治療を目指す国際拠点形成」

金光尚樹、米田正始 (2004) ここまで来た再生医療 京都大学大学院医学研究科・医学部付属病院・再生医科学研究所 平成 16 年度第 1 回 21 世紀 COE セミナー 組織工学をベースとした再生医療の最前線 主催：京都大学 21 世紀 COE プログラム 「融合的移植再生治療を目指す国際拠点形成」

丹原圭一、ゼラチン水和ゲルによる徐放化システムを用いた bFGF (塩基性線維芽細胞増殖因子) の今後の展望-動物実験から臨床応用へ- 京都大学大学院医学研究科・医学部附属病院・再生医学研究所 平成 16 年度第 1 回 21 世紀 COE セミナー 組織工学をベースとした再生医療の最前線 主催: 京都大学 21 世紀 COE プログラム 「融合的移植再生治療を目指す国際拠点形成」

Ikai A, Shirai M, Nishimura K, Ikeda T, Kameyama T, Ueyama K, Komeda M.(2005) Maintenance of pulmonary vasculature tone by blood derived from the inferior vena cava in a rabbit model of cavopulmonary shunt. *J Thorac Cardiovasc Surg.* 129(1):199-206

Marui A, Kanematsu A, Yamahara K, Doi K, Kushibiki T, Yamamoto M, Itoh H, Ikeda T, Tabata Y, Komeda M.(2005) Simultaneous application of basic fibroblast growth factor and hepatocyte growth factor to enhance the blood vessels formation. *J Vasc Surg(Journal of Vascular Surgery).* 41(1):82-90

Tsuneoyoshi H, Oriyanhan W, Kanemitsu H, Shina R, Nishina T, Ikeda T, Nishimura K, Komeda M.(2005) Heterotopic transplantation of failing rat heart as a model of left ventricular mechanical unloading toward recovery. *ASAIO Journal.* 51(1):116-120

Chen F, Fukuse T, Hasegawa S, Bando T, Hanaoka N, Kawashima M, Sakai H, Komeda M, Wada H.(2005) Living-donor lobar lung transplantation for pulmonary and abdominopelvic lymphangioliomyomatosis. *Thorac Cardiovasc Surg.* 53(2):125-7

Terai H, Tamura N, Yuasa S, Nakamura T, Shimizu Y, Komeda M.(2005) An experimental model of Stanford type B aortic dissection. *J Vasc Interv Radiol.* 16(4):515-9.

Sakaguchi G, Tambara K, Sakakibara Y, Ozeki M, Yamamoto M, Premaratne G, Lin X, Hasegawa K, Tabata Y, Nishimura K, Komeda M.(2005) Control-released hepatocyte growth factor prevents the progression of heart failure in stroke-prone spontaneously hypertensive rats. *Ann Thorac Surg* 79(5):1627-34

Tambara K, Premaratne GU, Sakaguchi G, Kanemitsu N, Lin X, Nakajima H, Sakakibara Y, Kimura Y, Yamamoto M, Tabata Y, Ikeda T, Komeda M.(2005) Administration of control-released hepatocyte growth factor enhances the efficacy of skeletal myoblast transplantation in rat infarcted hearts by greatly increasing both quantity and quality of the graft. *Circulation.* 112(9 Suppl):I129-34.

Tsuneoyoshi H, Oriyanhan W, Kanemitsu H, Shiina R, Nishina T, Matsuoka S, Ikeda T, Komeda M.(2005) Does the beta2-agonist clenbuterol help to maintain myocardial potential to recover during mechanical unloading?. *Circulation.* 112(9 Suppl):I51-6.

Lin X, Jo H, Sakakibara Y, Tambara K, Kim B, Komeda M, Matsuoka S.(2005) Beta-adrenergic stimulation does not activate Na⁺/Ca²⁺ exchange current in guinea pig, mouse, and rat ventricular myocytes. *Am J Physiol Cell Physiol.* 290(2):C601-8

Oriyanhan W, Yamazaki K, Miwa S, Takaba K, Ikeda T, Komeda M.(2005) Taurine prevents myocardial ischemia/reperfusion-induced oxidative stress and apoptosis in prolonged hypothermic rat heart preservation. *Heart Vessels.* 20(6):278-285.

Keiichi H, Marui A, Arai Y, Hujita M, Nomura T, Mitsutama M, Tabata Y, Komeda M.(2005) Sustained-release form of basic fibroblast growth factor prevents catheter-related bacterial invasion in mice. *Interactive Cardiovascular and Thoracic Surgery.* 4:526-30

Nemoto S, Peter Razeghi, Ishiyama M, Gilberto De Freitas, Heinrich Taegtmeyer, and Blasé A. Carabello.(2005) PPAR-γ agonist rosiglitazone ameliorates ventricular dysfunction in experimental chronic mitral regurgitation. *American Journal of Physiology Heart Circ Physiol.* 288:H77-H82

Jesus G. Vallejo, Nemoto S, Ishiyama M, Bi Yu, Pascal Knuefermann, Abinav Diwan, J. Scott Baker, Gilberto Defreitas, David J. Tweardy and Douglas L. Mann.(2005) Functional significance of inflammatory mediators in a murine model of resuscitated hemorrhagic shock. *American Journal of Physiology Heart Circ Physiol.* 288:H1272-H1277

新井善雄、丸井 晃、田畑泰彦、米田正始 (2005) 生体吸収性材料からの bFGF 徐放システムによる血管新生 日本脈管学会 45:145-150

中島博之、米田正始 (2005) 心臓血管外科領域における組織再生誘導治療 特集 Tissue engineering をベースとした組織生成誘導治療 The Japan Society of Drug Delivery System 20(2)

丹原圭一、米田正始 (2005) あらゆる英和を結集する集学的外科への道 Cardiovascular Med-Surg 7(3):436-440

仁科 健、大野暢久、金光ひでお、小山忠明、榊原 裕、根本慎太郎、池田 義、米田正始 (2005) 低心機能虚血性心疾患に対する外科治療 日本冠疾患学会 2005 11:116-119

廣瀬圭一、丸井 晃、田畑泰彦、米田正始 (2005) bFGF と血管新生治療 Pharma Medica 23:41-5

金光ひでお、米田正始(2005)どのようなプロセスで難治性心不全に陥るか外科手術後の症例 Heart View 9(10):69-72

池田 義、米田正始 (2005) 心筋症の治療 新版 心臓病児者の幸せのために 全国心臓病の子どもを守る会編 212-223

呼吸器外科学 (Thoracic Surgery)

Chen F, Nakamura T, Wada H. (2004) Development of new organ preservation solutions in Kyoto University. *Yonsei Med J.* 45:1107-14.

Ikeyama K, Sakai H, Omasa M, Nakamura T, Hamakawa H, Fujinaga T, Fukuse T, Wada H. (2005) Effects of cold preservation on the lung mechanical properties in rats. *Eur Surg Res.* 37:85-91

Shoji T, Omasa M, Nakamura T, Yoshimura T, Yoshida H, Ikeyama K, Fukuse T, Wada H. (2005) Mild hypothermia ameliorates lung ischemia reperfusion injury in an ex vivo rat lung model. *Eur Surg Res.* 37:348-53.

Miyahara R, Nakagawa T, Ishikawa S, Fukushima M, Wada H, Tanaka F. (2005) UFT inhibits lung metastases in spontaneous metastasis model of lung cancer. *Thorac Cardiovasc Surg.* 53(2):118-21.

形成外科学 (Plastic and Reconstructive Surgery)

Nozaki J, Kubota H, Yoshida H, Naitoh M, Goji J, Yoshinaga T, Mori K, Koizumi A and Nagata K (2004) The endoplasmic reticulum stress response is stimulated through the continuous activation of transcription factors ATF6 and XBPI in Ins2+/Akita pancreatic beta cells. *Genes Cells*, 9(3) : 261-70.

Naitoh M, Kubota H, Ikeda M, Tanaka T, Shirane H, Suzuki S and Nagata K (2005) Gene expression in human keloids is altered from dermal to chondrocytic and osteogenic lineage. *Genes Cells*, 10(11): 1081-91.

Morimoto N, Saso Y, Tomihata K, Taira T, Takahashi Y, Ohta M and Suzuki S (2005) Viability and function of autologous and allogeneic fibroblasts seeded in dermal substitutes after implantation. *J Surg Res.*, 125(1): 56-67.

眼科学 (Ophthalmology and Visual Sciences)

Nishijima K, Kiryu J, Tsujikawa A, Miyamoto K, Honjo M, Tanihara H, Nonaka A, Yamashiro K, Katsuta H, Miyahara S, Honda Y, Ogura Y. (2004) Platelets adhering to vascular wall mediate postischemic leukocyte-endothelial cell interactions in retinal microcirculation. *Invest Ophthalmol Vis Sci* 45:977-984.

Miyahara S, Kiryu J, Yamashiro K, Miyamoto K, Hirose F, Tamura H, Katsuta H, Nishijima K, Tsujikawa A, Honda Y, Yoshimura N. (2004) In vivo three-dimensional evaluation of leukocyte behavior in retinal microcirculation of mice. *Invest Ophthalmol Vis Sci* 45:4197-4201.

Tanemura M, Miyamoto N, Mandai M, Kamizuru H, Ooto S, Yasukawa T, Takahashi M, Honda Y. (2004) The role of estrogen and estrogen receptor β in choroidal neovascularization. *Molecular Vision*. 10:923-932, 2004

Ohashi H, Takagi H*, Koyama S, Oh H, Watanabe D, Antonetti DA, Matsubara T, Nagai K, Arai H, Kita T, Honda Y. (2004) Alterations in expression of angiopoietins and the Tie-2 receptor in the retina of streptozotocin induced diabetic rats. *Mol Vis*. 10: 608-17.

Miyahara S, Kiryu J, Yamashiro K, Miyamoto K, Hirose F, Tamura H, Katsuta H, Nishijima K, Tsujikawa A, Honda Y. (2004) Simvastatin inhibits leukocyte accumulation and vascular permeability in the retinas of rats with streptozotocin-induced diabetes. *Am J Pathol* 164:1697-1706.

Watanabe D, Takagi H, Suzuma K, Suzuma I, Oh H, Ohashi H, Kemmochi S, Uemura A, Ojima T, Suganami E, Miyamoto N, Sato Y, Honda Y. (2004) Transcription factor Ets-1 mediates ischemia- and VEGF-dependent retinal neovascularization. *Am J Pathol*. 164, 1827-1835.

Hirose F, Kiryu J, Miyamoto K, Nishijima K, Miyahara S, Katsuta H, Tamura H, Honda Y. (2004) In vivo evaluation of retinal injury after transient ischemia in hypertensive rats. *Hypertension* 43:1098-1102.

Ohashi H, Takagi H*, Oh H, Suzuma K, Suzuma I, Miyamoto N, Uemura A, Watanabe D, Murakami T, Sugaya T, Fukamizu A, Honda Y. (2004) Phosphatidylinositol 3-kinase/Akt regulates angiotensin II-induced inhibition of apoptosis in microvascular endothelial cells by governing survivin expression and suppression of caspase-3 activity. *Circ Res*. 94:785-793.

Suganami E, Takagi H*, Ohashi H, Suzuma K, Suzuma I, Oh H, Watanabe D, Ojima T, Suganami T, Fujio Y, Nakao K, Ogawa Y, Yoshimura N. (2004) Leptin stimulates ischemia-induced retinal neovascularization: possible role of vascular endothelial growth factor expressed in retinal endothelial cells. *Diabetes*. 53: 2443-8.

Miyawaki T, Umura A, Dezawa M, Yu RT, Ide C, Nishikawa S, Honda Y, Tanabe Y, Tanabe T. (2004) Tlx, an Orphan Nuclear Receptor, Regulates Cell Numbers and Astrocyte Development in the Developing Retina. *J Neurosci*. 24:8124-8134.

Tamura H, Miyamoto K, Kiryu J, Miyahara S, Katsuta H, Hirose F, Musashi K, Yoshimura N. (2005) Intravitreal injection of corticosteroid attenuates leukostasis and vascular leakage in experimental diabetic retina. *Invest Ophthalmol Vis Sci* 46: 1440-1444.

Musashi K, Kiryu J, Miyamoto K, Miyahara S, Katsuta H, Tamura H, Hirose F, Yoshimura N. (2005) Thrombin inhibitor reduces leukocyte-endothelial cell interactions and vascular leakage after scatter laser photocoagulation. *Invest Ophthalmol Vis Sci* 46: 2561-2566.

Watanabe D, Suzuma K, Matsui S, Kurimoto M, Kiryu J, Kita M, Suzuma I, Ohashi H, Ojima T, Murakami T, Kobayashi T, Masuda S, Nagao M, Yoshimura N, Takagi H. (2005) Erythropoietin as a retinal angiogenic factor in proliferative diabetic retinopathy. 353:782-92.

Murakami T, Takagi H, Suzuma K, Suzuma I, Ohashi H, Watanabe D, Ojima T, Suganami E, Kurimoto M, Kaneto H, Honda Y, Yoshimura N. (2005) Angiopoietin-1 Attenuates H₂O₂-induced SEK1/JNK Phosphorylation through the Phosphatidylinositol 3-Kinase/Akt Pathway in Vascular Endothelial Cells. *J Biol Chem*. 280:31841-9.

耳鼻咽喉科・頭頸部外科学 (Otolaryngology-Head and Neck Surgery)

Lee JE, Nakagawa T, Kim TS, Endo T, Shiga A, Iguchi F, Lee SH, Ito J. (2004) Role of reactive radicals in degeneration of the auditory system of mice following cisplatin treatment. *Acta Otolaryngol* 2004; 124: 1131-1135.

Lee JE, Nakagawa T, Kita T, Kim TS, Iguchi F, Endo T, Shiga A, Lee SH, Ito J. (2004) Mechanisms of apoptosis induced by cisplatin in marginal cells in mouse stria vascularis. *ORL* 2004;66:111-8.

Lee JE, Nakagawa T, Kim TS, Iguchi F, Endo T, Kita T, Murai N, Naito Y, Lee SH, Ito J. (2004) Signaling pathway for apoptosis of vestibular hair cells of mice due to aminoglycosides. *Acta Otolaryngol* 2004; Suppl. 551:69-74.

Tamura T, Nakagawa T, Iguchi F, Tateya I, Endo T, Kim TS, Dong Y, Kita T, Kojima K, Naito Y, Omori K, Ito J. (2004) Transplantation of neural stem cells into the modiolus of mouse cochleae injured by cisplatin. *Acta Otolaryngol* 2004; Suppl. 551:65-68.

Sakamoto T, Nakagawa T, Endo T, Kim TS, Iguchi F, Naito Y, Sasai Y, Ito J. (2004) Fates of mouse ES cells transplanted into inner ears of adult mice and embryonic chickens. *Acta Otolaryngol* 2004; Suppl. 551:48-52.

- Iguchi F, Nakagawa T, Tateya I, Endo T, Kim TS, Dong Y, Kita T, Kojima K, Naito Y, Omori K, Ito J. (2004) Surgical techniques for cell transplantation into the mouse cochlea. *Acta Otolaryngol* 2004; Suppl. 551:43-47.
- Kim TS, Kojima K, Nishida A, Tashiro K, Lee JE, Fujino K, Nakagawa T, Iguchi F, Endo T, Naito Y, Omori K, Lefebvre PP, Ito J. (2004) Expression of calretinin by fetal otocyst cells after transplantation into damaged rat utricle explants. *Acta Otolaryngol* 2004; Suppl. 551:34-38.
- Fujino K, Kim TS, Nishida A, Nakagawa T, Omori K, Naito Y, Ito. (2004) Transplantation of neural stem cells into explants of rat inner ear. *Acta Otolaryngol* 2004; Suppl. 551:31-33.
- Kim TS, Nakagawa T, Lee JE, Fujino K, Iguchi F, Endo T, Naito Y, Omori K, Lefebvre PP, Ito J. (2004) Induction of cell proliferation and beta-catenin expression in rat utricles in vitro. *Acta Otolaryngol* 2004; Suppl. 551:22-25.
- Takebayashi S, Nakagawa T, Kojima K, Kim TS, Kita T, Dong Y, Endo T, Iguchi F, Naito Y, Omori K, Ito J. (2004) Expression of beta-catenin in developing auditory epithelia of mice. *Acta Otolaryngol* 2004; Suppl. 551:18-21.
- Kojima K, Takebayashi S, Nakagawa T, Ito J. (2004) Expression of nestin epitopes in the developing rat cochlea sensory epithelia. *Acta Otolaryngol* 2004; Suppl. 551:14-17.
- Nakagawa T, Ito J. (2004) Application of cell therapy to inner ear diseases. *Acta Otolaryngol* 2004; Suppl. 551:6-9.
- Naito Y, Nakamura T, Nakagawa T, Iguchi F, Endo T, Fujino K, Kim TS, Hiratsuka Y, Tamura T, Kanemaru S, Shimizu Y, Ito J. (2004) Transplantation of bone marrow stromal cells into the cochlea of chinchillas. *Neuroreport* 2004; 15: 1-4.
- 中川隆之(2004) 聴力のバイオロジー：老化による聴力低下のメカニズムと聴力再生への取り組み *日老医誌* 2004; 41: 607-609.
- 中川隆之、井口福一郎、伊藤壽一(2004) 内耳への神経幹細胞移植 炎症・再生 2004; 24: 562-566.
- Ito J, Endo T, Nakagawa T, Kita T, Kim TS, Iguchi F. (2005) A new method for drug application to the inner ear. *ORL J Otorhinolaryngol Relat Spec.* 2005;67:272-275.
- Endo T, Nakagawa T, Kita T, Iguchi F, Kim TS, Tamura T, Iwai K, Tabata Y, Ito J. (2005) A novel strategy for treatment of inner ears using a biodegradable gel. *Laryngoscope* 115: 2016-2020.
- Tamura T, Kita T, Nakagawa T, Endo T, Kim TS, Ishihara T, Mizushima Y, Higaki M, Ito J. (2005) Drug delivery to the cochlea using PLGA nanoparticles. *Laryngoscope* 115: 2000-2005.
- Okano T, Nakagawa T, Endo T, Kim TS, Kita T, Tamura T, Matsumoto M, Ohno T, Sakamoto T, Iguchi F, Ito J. (2005) Engraftment of embryonic stem cell-derived neurons into the cochlear modiolus. *Neuroreport* 16: 1919-1922.
- Kim TS, Nakagawa T, Kita T, Higashi T, Takebayashi S, Matsumoto M, Kojima K, Sakamoto T, Ito J. (2005) Neural connections between embryonic stem cell-derived neurons and vestibular hair cells in vitro. *Brain Res* 2005; 1057: 127-133.
- Kim TS, Nakagawa T, Kitajiri S, Endo T, Takebayashi S, Iguchi F, Kita T, Tamura T, Ito J. (2005) Disruption and restoration of cell-cell junctions in mouse vestibular epithelia following aminoglycoside treatment. *Hear Res* 2005; 205: 2010-209.
- Matsumoto M, Nakagawa T, Higashi T, Kim TS, Kojima K, Kita T, Sakamoto T, Ito J. (2005) Innervation of stem cell-derived neurons into auditory epithelia of mice. *Neuroreport* 2005; 16: 787-790.
- Kita T, Nakagawa T, Kim TS, Iwai K, Takebayashi S, Akaike A, Ito J. (2005) Serofendic acid promotes survival of auditory hair cells and neurons of mice. *Neuroreport* 16: 689-692.
- Takebayashi S, Nakagawa T, Kojima K, Kim TS, Endo T, Iguchi F, Kita T, Yamamoto N, Ito J. (2005) Nuclear translocation of beta-catenin in developing auditory epithelia of mice. *Neuroreport* 2005; 16: 431-434.
- Nakagawa T, Ito J. (2005) Cell therapy for inner ear diseases. *Curr Pharm Des* 2005; 11: 1203-1207.
- Endo T, Nakagawa T, Iguchi F, Kita T, Okano T, Sha SH, Schacht J, Shiga A, Kim TS, Ito J.(2005) Elevation of superoxide dismutase increases acoustic trauma from noise exposure. *Free Rad Biol Med* 2005; 38: 492-498.
- Shiga A, Nakagawa T, Nakayama M, Endo T, Iguchi F, Kim TS, Naito Y, Ito J. (2005) Aging effects on vestibulo-ocular responses in C57B/6 mice: comparison with alteration in auditory function. *Audiol Neurootol* 2005; 10: 97-104.
- 伊藤壽一、中川隆之(2005) 暮らしの科学25 難聴Q & A ミネルヴァ書房 京都
- 中川隆之(2005) 内耳再生への幹細胞医学の応用 *Otology Japan* 15: 114-118

整形外科学 (Orthopaedic and Musculoskeletal Surgery)

- Kuroki H., Nakagawa Y., Mori K., Ohba M., Suzuki T., Mizuno Y, Ando K, Takenaka M, Ikeuchi K, and Nakamura T (2004) Acoustic stiffness and change in plug cartilage over time after autologous osteochondral grafting: correlation between ultrasound signal intensity and histological score in a rabbit model. *Arthritis Res Ther*, 6:R492-504.
- Ohsawa K, Neo M, Okamoto T, Tamura J, and Nakamura T (2004) In vivo absorption of porous apatite- and wollastonite-containing glass-ceramic. *J Mater Sci Mater Med*, 15:859-864.
- Kasai S, Shimizu M, Matsumura T, Okudaira S, Matsushita M, Tsuboyama T, Nakamura T, and Hosokawa M(2004) Consistency of low bone density across bone sites in SAMP6 laboratory mice. *J Bone Miner Metab*, 22:207-214.

Kuroki H, Nakagawa Y, Mori K, Ikeuchi K, and Nakamura T (2004) Mechanical effects of autogenous osteochondral surgical grafting procedures and instrumentation on grafts of articular cartilage. *Am J Sports Med*, 32:612-620.

Shinzato S, Nakamura T, Kawanabe K, and Kokubo T (2004) In vivo aging test for a bioactive bone cement consisting of glass bead filler and PMMA matrix. *J Biomed Mater Res B Appl Biomater*, 68: 132-139.

Ushio K, Oka M, Hyon SH, Hayami T, Yura S, Matsumura K, Toguchida J, and Nakamura T (2004) Attachment of artificial cartilage to underlying bone. *J Biomed Mater Res B Appl Biomater*, 68:59-68.

Fujibayashi S, Neo M, Kim HM, Kokubo T, and Nakamura T (2004) Osteoinduction of porous bioactive titanium metal. *Biomaterials*, 25:443-450.

Hasegawa S, Tamura J, Neo M, Goto K, Shikinami Y, Saito M, Kita M, Nakamura T. (2005) In vivo evaluation of a porous hydroxyapatite/poly-DL-lactide composite for use as a bone substitute. *J Biomed Mater Res A*, 75:567-579.

Goto K, Tamura J, Shinzato S, Fujibayashi S, Hashimoto M, Kawashita M, Kokubo T, and Nakamura T (2005) Bioactive bone cements containing nano-sized titania particles for use as bone substitutes. *Biomaterials*, 26:6496-6505.

Matsumoto T, Kakinoki R, Ikeguchi R, Hyon SH, and Nakamura T (2005) Optimal conditions for peripheral nerve storage in green tea polyphenol: an experimental study in animals. *J Neurosci Methods*, 145:255-266.

Takemoto M, Fujibayashi S, Neo M, Suzuki J, Kokubo T, and Nakamura T (2005) Mechanical properties and osteoconductivity of porous bioactive titanium. *Biomaterials*, 26:6014-6023.

Ikeguchi R, Kakinoki R, Matsumoto T, Hyon SH, and Nakamura T (2005) Peripheral nerve allografts stored in green tea polyphenol solution. *Transplantation*, 79:688-695.

Ishibe T, Nakayama T, Okamoto T, Aoyama T, Nishijo K, Shibata KR, Shima Y, Nagayama S, Katagiri T, Nakamura Y, Nakamura T, and Toguchida J (2005) Disruption of fibroblast growth factor signal pathway inhibits the growth of synovial sarcomas: potential application of signal inhibitors to molecular target therapy. *Clin Cancer Res*, 11:2702-2712.

口腔外科学 (Oral and Maxillofacial Surgery)

S. Kaihara, K. Bessho, Y. Okubo, J. Sonobe, M. Kawai, T. Iizuka. (2004) Simple and Effective Osteoinductive Gene Therapy by Local Injection of a Bone Morphogenetic Protein-2-expressing Recombinant Adenoviral Vector and FK506 Mixture in Rats. *Gene Therapy* 11 : 439-447.

別所和久(2005) BMP 発現ベクターによる骨誘導に関する実験的研究、別冊整形外科 No47 骨・軟骨移植 - 最近の知見、p37-42、岩本幸英編、南江堂、東京

園部純也、海原真治、大久保康則、河井まりこ、楠本健司、別所和久 (2005) 遺伝子組み換えヒト骨形成因子によるラット下腿筋肉内骨誘導におけるニコチンの影響、日口外誌、51 ; 274-279

別所和久、大久保康則、園部純也(2005) 喫煙の歯科インプラント治療に対する影響 - 歯科インプラント埋入後の周囲形成骨との接触率および結合力へのニコチンの影響に関する研究 -、喫煙科学研究財団研究年報、平成 16 年度 ; 609-614

別所和久、前田潤一郎、大久保康則、河井まりこ、園部純也(2005) 喫煙の歯科インプラント治療に対する影響 - 歯科インプラント周囲骨形成へのニコチンの経時的影響に関する研究 -、喫煙科学研究財団研究年報、平成 15 年度 ; 564-569

臨床神経学 (Neurology)

Chiba Y, Yamashita Y, Ueno M, Fujisawa H, Hirayoshi K, Hohmura K, Tomimoto H, Akiguchi I, Satoh M, Shimada A, Hosokawa M. (2005) Cultured murine dermal fibroblast-like cells from senescence-accelerated mice as in vitro models for higher oxidative stress due to mitochondrial alterations. *J Gerontol A Biol Sci Med Sci*. 60: 1087-1098.

Nakamizo T, Kawamata J, Yamashita H, Kanki R, Kihara T, Sawada H, Akaike A, Shimohama S. (2005) Stimulation of nicotinic acetylcholine receptors protects motor neurons. *Biochem Biophys Res Commun*. 330: 1285-1289.

Ueno M, Sakamoto H, Tomimoto H, Akiguchi I, Kanenishi K, Onodera M. (2004) Blood-brain barrier is impaired in the hippocampus of young adult spontaneously hypertensive rat (SHR). *Acta Neuropathol (Berl)*, 107: 532-528.

Shibata M, Ohtani R, Ihara M, Tomimoto H (2004) White matter lesions and glial activation in a novel mouse model of chronic cerebral hyperperfusion. *Stroke*, 35: 2598-2603.

Ohtani R, Tomimoto H, Kondo T, Wakita H, Akiguchi I, Shibasaki H, Okazaki T (2004) Upregulation of ceramide and its regulating mechanism in a rat model of chronic cerebral ischemia. *Brain Research*, 1023 : 31-40

脳神経外科学 (Neurosurgery)

Horiguchi S, Takahashi J, Kishi Y, Morizane A, Okamoto Y, Koyanagi M, Tsuji M, Tashiro K, Honjo T, Fujii S, and Hashimoto N. (2004) Neural precursor cells derived from human embryonic brain retain regional specificity. *J Neurosci Res*, 75:817-824.

Takagi Y, Nishimura M, Morizane A, Takahashi J, Nozaki K, Hayashi J, and Hashimoto N (2005) Survival and differentiation of neural progenitor cells derived from embryonic stem cells and transplanted into ischemic brain. *J Neurosurg*, 103: 304-310.

Kishi Y, Takahashi J, Koyanagi M, Morizane A, Okamoto Y, Horiguchi S, Tashiro K, Honjo T, Fujii S, and Hashimoto N. (2005) Estrogen

promotes the differentiation and survival of dopaminergic neurons derived from human neural stem cells. *J Neurosci Res*, 79: 279-286.

Takagi Y, Takahashi J, Saiki H, Morizane A, Hayashi T, Kishi Y, Fukuda H, Okamoto Y, Koyanagi M, Ideguchi M, Hayashi H, Imazato T, Kawasaki H, Suemori H, Omachi S, Iida H, Itoh N, Nakatsuji N, Sasai Y, and Hashimoto N. (2005) Dopaminergic neurons generated from monkey embryonic stem cells function in a Parkinson primate model. *J Clin Invest*, 115: 102-109.

輸血部 (Transfusion Medicine and Cell Therapy)

Segawa H, Kimura S, Kuroda J, Sato K, Yokota A, Kawata E, Kamitsuji Y, Ashihara E, Yuasa T, Fujiyama Y, Ottmann OG, and Maekawa T, (2005) Zoledronate synergizes with imatinib mesylate to inhibit Ph^+ primary leukaemic cell growth. *Br J Haematol*, 130: 558-560.

Nogawa M, Yuasa T, Kimura S, Tanaka M, Kuroda J, Sato K, Yokota A, Segawa S, Toda Y, Kageyama S, Yoshiki T, Okada Y, and Maekawa T, (2005) Intravesical administration of small interfering RNA targeting PLK-1 successfully prevents the growth of bladder cancer. *J Clin Invest*, 115: 978-985.

Sato K, Kimura S, Segawa H, Yokota A, Matsumoto S, Kuroda J, Nogawa M, Yuasa T, Kiyono Y, Wada H, and Maekawa T, (2005) Cytotoxic effects of gd T cells expanded ex vivo by a third generation bisphosphonate for cancer immunotherapy. *Int J Cancer*, 116: 94-99.

Yuasa T, Nogawa M, Kimura S, Yokota A, Sato K, Segawa H, Kuroda J, and Maekawa T, (2005) A third generation bisphosphonate, minodronic acid (YM529), augments the interferon α/β -mediated inhibition of renal cell cancer cell growth both in vitro and in vivo. *Clin Cancer Res*, 11: 853-859.

Nogawa M, Yuasa T, Kimura S, Kuroda J, Segawa H, Sato K, Koizumi M, and Maekawa T, (2005) Zoledronic acid mediates Ras-independent growth inhibition of prostate cancer cells. *Oncol Res*, 15: 1-9.

Segawa H, Kimura S, Kuroda J, Sato K, Nogawa M, Yuasa T, Yokota A, Hodohara K, Fujiyama Y, and Maekawa T, (2005) The anti-leukemic efficacy of the third generation bisphosphonate ONO5920/YM529. *Leuk Res*, 29: 451-457.

Nogawa M, Yuasa T, Kimura S, Kuroda J, Sato K, Segawa H, and Maekawa T, (2005) Monitoring luciferase-labeled cancer cell growth and metastasis in different in vivo models. *Cancer Lett*, 217: 243-253.

Matsumoto S, Kimura S, Segawa H, Kuroda J, Yuasa T, Sato K, Nogawa M, Tanaka F, Maekawa T, and Wada H, (2005) Efficacy of the third-generation bisphosphonate, zoledronic acid alone and combined with anti-cancer agents against small cell lung cancer cell lines. *Lung Cancer*, 47: 31-39.

木村晋也、前川 平 (2005) 細胞内シグナル伝達系を阻害する薬剤 .3. Ras 阻害剤、2) Zoledronate. 分子標的治療薬-作用機序と臨床、p143-151、元吉和夫、大野竜三編、メディカル・レビュー社、東京.

木村晋也、黒田順也、前川 平 (2005) Ras 関連蛋白質シグナル伝達を標的とした造血器腫瘍の分子標的治療、 p179-189、高久文磨編、Annual Review 2005 血液、中外医薬社、東京.

湯浅 健、木村晋也、前川 平 (2005) RNA を標的としたがん治療の可能性 . 臨床腫瘍内科学入門、p117-121、金倉 讓 編著、永井書店、大阪.

木村晋也、黒田純也、前川 平 (2005) Ras superfamily シグナル伝達経路を標的とした白血病治療. 分子標的療法の基礎と臨床、p175-184、鶴尾 隆監修、篠原出版社、東京.

木村晋也、黒田純也、前川 平 (2005) Abl 点突然変異. 血液・腫瘍科、51: 545-555.

木村晋也、上辻由里、前川 平 (2005) 急性リンパ性白血病 . 癌治療と宿主、69-80.

木村晋也、前川 平 (2005) Ras 関連蛋白を分子標的とした白血病治療 . 臨床血液、46:179-186.

木村晋也、前川 平 (2005) イマチニブ耐性 CML に対する新たなキナーゼ阻害剤. 血液・腫瘍科、51: 21-30.

湯浅 健、木村晋也、前川 平(2005) Bisphosphonate の抗腫瘍作用. *Cancer Frontier*、7: 70-76.

木村晋也、黒田純也、前川 平 (2005) ファルネシルトランスフェラーゼ阻害剤による MDS と難治性 AML の治療. 血液・腫瘍科、50: 483-491.

木村晋也、前川 平 (2005) ビスフォスフォネート製剤. 血液・腫瘍科、50: 68-76.

木村晋也、前川 平 (2004) 白血病と骨組織の相互作用. *Molecular Medicine*、41:1374-1381.

木村晋也、黒田純也、前川 平 (2004) Ras 関連蛋白 および BCR/ABL ダブルブロック による Philadelphia 染色体陽性白血病の治療. *日本炎症再生医学会雑誌*、24:113-117.

木村晋也 (2004) Zoledronate, グリベック併用による抗 Ph^+ 白血病作用. *医学の歩み*、208: 111-112.

薬剤部 (Pharmacy)

Yamaguchi, H., Yano, I., Saito, H. and Inui, K. (2004) Effect of cisplatin-induced acute renal failure on bioavailability and intestinal secretion of quinolone antibacterial drugs in rats. *Pharm. Res.*, 21(2), 330-338.

Nakamura, N., Masuda, S., Takahashi, K., Saito, H., Okuda, M. and Inui K. (2004) Decreased expression of glucose and peptide transporters in rat remnant kidney. *Drug Metab. Pharmacokinet.*, 19(2), 41-47.

Ashida, K., Katsura, T., Saito, H. and Inui, K. (2004) Decreased activity and expression of intestinal oligopeptide transporter PEPT1 in rats with

hyperthyroidism in vivo. *Pharm. Res.*, 21(6), 975-981 .

Horiba, N., Masuda, S., Takeuchi, A., Saito, H., Okuda, M. and Inui K. (2004) Gene expression variance based on random sequencing in rat remnant kidney. *Kidney Int.*, 66(1), 29-45.

Pan, X., Terada, T., Okuda, M. and Inui, K. (2004) Regulation of diurnal rhythm of intestinal transporters SGLT1 and PEPT1 in food deprived, refed and scheduled fed rats. *J. Nutr.*, 134(9), 2211-2215.

Terada, T. and Inui, K. (2004) Peptide transporters: structure, function, regulation and application for drug delivery. *Curr. Drug Metab.*, 5(1), 85-94.

Fukudo, M., Yano, I., Masuda, S., Okuda, M. and Inui, K. (2005) Distinct inhibitory effects of tacrolimus and cyclosporin A on calcineurin phosphatase activity. *J. Pharmacol. Exp. Ther.*, 316 (2), 816-825.

Jiko, M., Yano, I., Okuda, M. and Inui, K. (2005) Altered pharmacokinetics of paclitaxel in experimental hepatic or renal failure. *Pharm. Res.*, 22(2), 228-234

Omae, T., Goto, M., Shimomura, M., Masuda, S., Saito, H. and Inui, K. (2005) Transient up-regulation of P-glycoprotein reduces tacrolimus absorption after ischemia-reperfusion injury in rat ileum. *Biochem. Pharmacol.*, 69(4), 561-568.

Habu, Y., Yano, I., Okuda, M., Fukatsu, A. and Inui, K. (2005) Restored expression and activity of organic ion transporters rOAT1, rOAT3 and rOCT2 after hyperuricemia in the rat kidney. *Biochem. Pharmacol.*, 69(6), 993-999.

Shimizu, Y., Masuda, S., Nishihara, K., Ji, L., Okuda, M. and Inui, K. (2005) Increased protein level of PEPT1 intestinal H⁺/peptide cotransporter up-regulates absorption of glycylsarcosine and ceftibuten in 5/6 nephrectomized rats. *Am. J. Physiol. Gastrointest. Liver Physiol.*, 288(4), G664-G670.

Nishio, K., Katsura, T., Ashida, K., Okuda, M. and Inui, K. (2005) Modulation of P-glycoprotein expression in hyperthyroid rat tissues. *Drug Metab. Dispos.*, 33(11), 1584-1587.

Yonezawa, A., Masuda, S., Nishihara, K., Yano, I., Katsura, T. and Inui, K. (2005) Association between tubular toxicity of cisplatin and expression of organic cation transporter rOCT2 (Slc22a2) in the rat. *Biochem. Pharmacol.*, 70(12), 1823-1831.

探索医療センター (Translational Research Center)

Li YS, Kanamoto N, Hataya Y, Moriyama K, Hiratani H, Nakao K, and Akamizu T (2004) Transgenic Mice Producing MHC Class II Molecules on Thyroid Cells Do Not Develop Apparent Autoimmune Thyroid Diseases. *Endocrinology*, 145:2524-2530.

Haruta M, Sasai Y, Kawasaki H, Amemiya K, Ooto S, Kitada M, Suemori H, Nakatsuji N, Ide C, Honda Y, and Takahashi M (2004) In vitro and in vivo characterization of pigment epithelial cells differentiated from primate embryonic stem cells. *Invest Ophthalmol Vis Sci*, 45:1021-1025.

Ooto S, Akagi T, Kageyama R, Akita J, Mandai M, Honda Y, and Takahashi M (2004) Potential for neural regeneration after neurotoxic injury in the adult mammalian retina. *Proc Natl Acad Sci USA*, 101:13654-13659.

Akagi T, Inoue T, Miyoshi G, Bessho Y, Takahashi M, Lee JE, Guillemot F, and Kageyama R (2004) Requirement of multiple basic helix-loop-helix genes for retinal neuronal subtype specification. *J Biol Chem*, 279:28492-28498.

Akagi T, Mandai M, Ooto S, Hirami Y, Osakada F, Kageyama R, Yoshimura N, and Takahashi M (2004) Otx2 homeobox gene induces photoreceptor-specific phenotypes in cells derived from adult iris and ciliary tissue. *Invest Ophthalmol Vis Sci*, 45:4570-4575.

Tanemura M, Miyamoto N, Mandai M, Kamizuru H, Ooto S, Yasukawa T, Takahashi M, and Honda Y (2004) The role of estrogen and a estrogen receptor β in choroidal neovascularization. *Molecular Vision*, 10:923-932.

Kobayashi T, Tahara Y, Matsumoto M, Iguchi M, Sano H, Murayama T, Arai H, Oida H, Yurugi-Kobayashi T, Yamashita JK, Katagiri H, Majima M, Yokode M, Kita T, and Narumiya S (2004) Roles of thromboxane A2 and prostacyclin in the development of atherosclerosis in apoE-deficient mice. *J Clin Invest*, 114:784-794.

Xu Y, Arai H, Zhuge X, Sano H, Murayama T, Yoshimoto M, Heike T, Nakahata T, Nishikawa S-I, Kita T, and Yokode M (2004) Role of bone marrow-derived progenitor cells in cuff-induced vascular injury in mice. *Arterioscler Thromb Vasc Biol*, 24:477-482.

赤水尚史、西條美佐 (2004) 特集：分子甲状腺学の進歩 2004. 刺激型抗 TSH 受容体トランスジェニックマウスの作製と解析. *ホルモンと臨床* 52 (3): 243-248. 2004.

岩倉 浩、細田公則、有安宏之、高屋和彦、中尾一和 (2004) グレリン遺伝子改変動物. *日本臨床* vol.62 suppl 9:344-346.

有安宏之、寒川憲治、中尾一和 (2004) 中枢性摂食異常症. *日本臨床*. 62 Suppl 9:410-3.

Okabe TA, Kishimoto C, Shimada K, Murayama T, Yokode M, and Kita T (2005) Effects of late administration of immunoglobulin on experimental atherosclerosis in apolipoprotein e-deficient mice. *Circ J*, 69:1543-1546.

Ariyasu H, Takaya K, Iwakura H, Hosoda H, Akamizu T, Arai Y, Kangawa K, and Nakao K (2005) Transgenic Mice Overexpressing Des-Acyl Ghrelin Show Small Phenotype. *Endocrinology*, 146:355-364.

Iwakura H, Hosoda K, Son C, Fujikura J, Tomita T, Noguchi M, Ariyasu H, Takaya K, Masuzaki H, Ogawa Y, Hayashi T, Inoue G, Akamizu T, Hosoda H, Kojima M, Itoh H, Toyokuni S, Kangawa K, and Nakao K (2005) Analysis of rat insulin II promoter-ghrelin transgenic mice and rat glucagons promoter-ghrelin transgenic mice. *J Biol Chem*, 280:15247-15256.

Il-Deok Kim, Azuma T, Ido A, Moriuchi A, Numata M, Teramukai S, Okamoto J, Tsutsumi S, Tanaka K, and Tsubouchi H (2005) Navigator-echo-based MR provides high-resolution images and precise volumetry of swine livers without breath holding or injection of contrast

media. *Liver Transplantation*, 12:72-77.

Numata M, Ido A, Moriuchi A, Ildeok K, Tahara Y, Yamamoto S, Hasuike S, Nagata K, Miyata Y, Uto H, and Tsubouchi H (2005) Hepatocyte growth factor facilitates the repair of large colonic ulcers in 2,4,6-trinitrobenzene sulfonic acid-induced colitis in rats. *Inflamm Bowel Dis*, 11:551-558.

Noguchi H, Nakai Y, Matsumoto S, Kawaguchi M, Ueda M, Okitsu T, Iwanaga Y, Yonekawa Y, Nagata H, Minami K, Masui Y, Futaki S, and Tanaka K (2005) Cell permeable peptide of JNK inhibitor prevents islet apoptosis immediately after isolation and improves islet graft function. *Am J Transplant*, 5:1848-1855.

Minami K, Okuno M, Miyawaki K, Okumachi A, Ishizaki K, Oyama K, Kawaguchi M, Ishizuka N, Iwanaga T, and Seino S (2005) Lineage tracing and characterization of insulin-secreting cells generated from adult pancreatic acinar cells. *Proc Natl Acad Sci USA*, 102:15116-15121.

赤水尚史 (2005) (甲状腺機能亢進症と低下症・トピックス) パセドウ病の動物モデル. *Medical Practice* 22 (4): 636-637, 文光堂.

免疫ゲノム医学 (Immunology and Genomic Medicine)

Begum N. A., Kinoshita K., Kakazu N., Muramatsu M., Nagaoka H., Shinkura R., Biniszkiwicz D., Boyer L. A., Jaenisch R. and Honjo T. (2004a) Uracil DNA glycosylase activity is dispensable for immunoglobulin class switch. *Science* 305, 1160-3.

Begum N. A., Kinoshita K., Muramatsu M., Nagaoka H., Shinkura R. and Honjo T. (2004b) De novo protein synthesis is required for activation-induced cytidine deaminase-dependent DNA cleavage in immunoglobulin class switch recombination. *Proc Natl Acad Sci U S A* 101, 13003-7.

Fagarasan S. and Honjo T. (2004) Regulation of IgA synthesis at mucosal surfaces. *Curr Opin Immunol* 16, 277-83.

Honjo T., Muramatsu M. and Fagarasan S. (2004) AID: how does it aid antibody diversity? *Immunity* 20, 659-68.

Ito S., Nagaoka H., Shinkura R., Begum N., Muramatsu M., Nakata M. and Honjo T. (2004) Activation-induced cytidine deaminase shuttles between nucleus and cytoplasm like apolipoprotein B mRNA editing catalytic polypeptide 1. *Proc Natl Acad Sci U S A* 101, 1975-80.

Shinkura R., Ito S., Begum N. A., Nagaoka H., Muramatsu M., Kinoshita K., Sakakibara Y., Hijikata H. and Honjo T. (2004) Separate domains of AID are required for somatic hypermutation and class-switch recombination. *Nat Immunol* 5, 707-12.

Suzuki K., Meek B., Doi Y., Muramatsu M., Chiba T., Honjo T. and Fagarasan S. (2004) Aberrant expansion of segmented filamentous bacteria in IgA-deficient gut. *Proc Natl Acad Sci U S A* 101, 1981-6.

Tanigaki K., Tsuji M., Yamamoto N., Han H., Tsukada J., Inoue H., Kubo M. and Honjo T. (2004) Regulation of alphabeta/gammadelta T cell lineage commitment and peripheral T cell responses by Notch/RBP-J signaling. *Immunity* 20, 611-22.

Honjo T., Nagaoka H., Shinkura R. and Muramatsu M. (2005) AID to overcome the limitations of genomic information. *Nat Immunol* 6, 655-61.

Iwai Y., Terawaki S. and Honjo T. (2005) PD-1 blockade inhibits hematogenous spread of poorly immunogenic tumor cells by enhanced recruitment of effector T cells. *Int Immunol* 17, 133-44.

Kotani A., Okazaki I. M., Muramatsu M., Kinoshita K., Begum N. A., Nakajima T., Saito H. and Honjo T. (2005) A target selection of somatic hypermutations is regulated similarly between T and B cells upon activation-induced cytidine deaminase expression. *Proc Natl Acad Sci U S A* 102, 4506-11.

Nagaoka H., Ito S., Muramatsu M., Nakata M. and Honjo T. (2005) DNA cleavage in immunoglobulin somatic hypermutation depends on de novo protein synthesis but not on uracil DNA glycosylase. *Proc Natl Acad Sci U S A* 102, 2022-7.

Okazaki T. and Honjo T. (2005) Pathogenic roles of cardiac autoantibodies in dilated cardiomyopathy. *Trends Mol Med* 11, 322-6.

Okazaki T., Otake Y., Wang J., Hiai H., Takai T., Ravetch J. V. and Honjo T. (2005) Hydronephrosis associated with antiurothelial and antinuclear autoantibodies in BALB/c-Fcgr2b-/-Pcd1-/- mice. *J Exp Med* 202, 1643-8.

Wang J., Yoshida T., Nakaki F., Hiai H., Okazaki T. and Honjo T. (2005) Establishment of NOD-Pcd1-/- mice as an efficient animal model of type I diabetes. *Proc Natl Acad Sci U S A* 102, 11823-8.

先端領域融合医学研究機構 (Horizontal Medical Research Organization)

Kadotani, H., Taniguchi, M., Takahashi, Y. and Inoue, Y. (2004) Genetic approach to sleep-disordered breathing. *Sleep and Biological Rhythms* 2, S49.

Harada, M., Taniguchi, M., Ohi, M., Nakai, N., Okura, M., Wakamura, T., Tamura, M., Kadotani, H. and Chin, K. (2004) Acceptance and short-term tolerance of nasal continuous positive airway pressure therapy in elderly patients with obstructive sleep apnea. *Sleep and Biological Rhythms* 2, 53-56.

Takahashi, M., Yoshimoto, T., and Kubo, H. (2004) Molecular mechanisms of lymphangiogenesis. *Int J Hematol.* 80: 29-34.

Shimizu, K., Kubo, H., Yamaguchi, K., Kawashima, K., Ueda, Y., Matsuo, K., Awane, M., Shimahara, Y., Takabayashi, A., Yamaoka, Y., and Satoh, S. (2004) Suppression of VEGFR-3 signaling inhibits lymph node metastasis in gastric cancer. *Cancer Sci.* 95: 328-33.

Cao, R., Eriksson, A., Kubo, H., Alitalo, K., Cao, Y., and Thyberg, J. (2004) Comparative evaluation of FGF-2-, VEGF-A-, and VEGF-C-induced angiogenesis, lymphangiogenesis, vascular fenestrations, and permeability. *Circ Res.* 94: 664-70.

- Kubo H., Kono, T. (2004) Molecular mechanisms of lymphangiogenesis in diseases, *Microcirculation*, annual.20:3-4.
- Murai, K., Naruse, Y., Shaul, Y., Agata, Y., and Mori, N. (2004) Direct interaction of NRSF with TBP: Chromatin reorganization and core promoter repression for neuron-specific gene transcription. *Nucleic Acids Res.*, 32, 3180-3189.
- Pradervand, S., Yasukawa, H., Muller, O.G., Kjekshus, H., Nakamura, T., St. Amand, T., Yajima, T., Matsumura, K., Duplain, H., Iwatate, M., Woodard, S., Pedrazzini, T., Ross, J., Firsov, D., Rossier, B.C., Hoshijima, M., and Chien, K.R. (2004) Small proline-rich protein 1A is a gp130 pathway and stress inducible cardio-protective protein. *EMBO J* 23: 4517-25.
- Akagi, K., Suzuki, T., Stephens, R.M., Jenkins, N.A. and Copeland, N.G. (2004) RTCGD: retroviral tagged cancer gene database. *Nucleic Acids Res.* 32, D523-7.
- Warming, S., Suzuki, T., Yamaguchi, T. P., Jenkins, N. A. and Copeland, N.G. (2004) Early B-cell factor-associated zinc-finger gene is a frequent target of retroviral integration in murine B-cell lymphomas. *Oncogene* 23, 2727-31.
- Shin, M.S., Fredrickson, T.N., Hartley, J.W., Suzuki, T., Akagi, K. and Morse, H.C.III. (2004) High-throughput retroviral tagging for identification of genes involved in initiation and progression of mouse splenic marginal zone lymphomas. *Cancer Research*, 64, 4419-27.
- Kinoshita, M., Field, C. M. (2004) Septins and Cytokinesis. In *Encyclopedia of Biological Chemistry* (eds. W. J. Lennarz, M. D. Lane, and D. W. Cleveland), Elsevier: 22-26.
- Kanda, H., Tanaka, T., Matsumoto, M., Umemoto, E., Ebisuno, Y., Kinoshita, M., Noda, M., Kannagi R., Hirata, T., Murai, T., Fukuda, M. and Miyasaka, M. (2004) Endomucin, a sialomucin expressed in high endothelial venules, supports L-selectin-mediated rolling. *Int Immunol.* 16, 1265-1274.
- Newton, J.R., Ellsworth, C., Miyakawa, T., Tonegawa, S., and Sur, M. (2004) Acceleration of visually cued conditioned fear through the auditory pathway. *Nature Neuroscience*, 7, 968-973.
- Seeger, T., Fedorova, I., Zheng, F., Miyakawa, T., Koustova, E., Gomez, J., Basile, A.S., Alzheimer, C., and Wess, J. (2004) M2 muscarinic acetylcholine receptor knockout mice show deficits in behavioral flexibility, working memory, and hippocampal plasticity, *Journal of Neuroscience*, 24: 10117-10127.
- Kanatsu-Shinohara, M., Toyokuni, S. and Shinohara, T. (2004) CD9 is a surface marker on mouse and rat male germline stem cells. *Biol. Reprod.* 70, 70-75.
- Kanatsu-Shinohara, M., Morimoto, T., Toyokuni, S. and Shinohara, T. (2004) Regulation of mouse spermatogonial stem cell self-renewing division by the pituitary gland. *Biol. Reprod.* 70, 1731-1737.
- Kanatsu-Shinohara, M., Toyokuni, S. and Shinohara, T. (2004) Transgenic mouse produced by retroviral transduction of male germline stem cells in vivo. *Biol. Reprod.* (Cover article of the issue) 71, 1202-1207.
- Kanatsu-Shinohara, M., Inoue, K., Lee, J., Yoshimoto, M., Ogonuki, N., Miki, H., Baba, S., Kato, T., Kazuki, Y., Toyokuni, S., Toyoshima, M., Niwa, O., Oshimura, M., Heike, T., Nakahata, T., Ishino, F., Ogura, A. and Shinohara, T. (2004) Generation of pluripotent stem cells from neonatal mouse testis. *Cell* 119, 1001-1012.
- Nagai, Y., Sano, H. and Yokoi, M. (2005) Transgenic expression of Cre recombinase in mitral/tufted cells of the olfactory bulb. *Genesis* 43: 12-16.
- Tsuchiya, Y., Minami, I., Kadotani, H. and Nishida, E. (2005) Resetting of peripheral circadian clock by prostaglandin E2. *EMBO Report* 6, 256-61.
- Takahashi, M., Lin, Y.-M., Nakamura, Y., and Furukawa, Y. (2005) Isolation and characterization of a novel gene CLUAP1 whose expression is frequently upregulated in colon cancer. *Oncogene.* 23: 9289-9294.
- Baldwin, M.E., Halford, M.M., Roufail, S., Williams, R.A., Hibbs, M.L., Grail, D., Kubo, H., Nishikawa, S.-I., Stacker, S.A., and Achen, M.G. (2005) Vascular endothelial growth factor-D is dispensable for development of the lymphatic system. *Mol.Cell.Biol.*, 25:2441-9.
- Kumasaka, T., Seyama, K., Mitani, K., Souma, S., Kashiwagi, S., Hebisawa, A., Sato, T., Kubo, H., Gomi, K., Shibuya, K., Fukuchi, Y., and Suda, K. (2005) Lymphangiogenesis-Mediated Shedding of LAM Cell Clusters as a Mechanism for Dissemination in Lymphangioliomyomatosis. *Am. J. Surg. Pathol.* 29:1356-1366.
- Nishiyama, H., Ogawa, O., Takahashi, C., Itoharu, S., Nishimune, Y., Noda, M. and Kinoshita, M. (2005) Cortical organization by the septin cytoskeleton is essential for structural and mechanical integrity of mammalian spermatozoa. *Developmental Cell* 8, 343-352.
- Spiliotis, E. T., Kinoshita, M. and Nelson, W. J. (2005) A mitotic septin scaffold required for mammalian chromosome congression and segregation. *Science* 307, 1781-1785.
- Ono, R., Ihara, M., Nakajima, H., Ozaki, K., Kataoka-Fujiwara, Y., Taki, T., Nagata, K., Inagaki, M., Yoshida, N., Kitamura, T., Hayashi, Y., Kinoshita, M. and Nosaka, T. (2005) Disruption of Sept6, a fusion partner gene of Mixed Lineage Leukemia (MLL), does not affect ontogeny, leukemogenesis induced by MLL-SEPT6, or the phenotype induced by loss of Sept4. *Mol. Cell Biol.* 25, 24, 10965-10978.
- Hagiwara, A., Fukazawa, Y., Deguchi-Tawarada, M., Ohtsuka, T., Shigemoto, R. (2005) Differential distribution of release-related proteins in the hippocampal CA3 area as revealed by freeze-fracture replica labeling. *J Comp Neurol.* 489, 195-216.
- Morishima, Y., Miyakawa, T., Furuyashiki, T., Tanaka, Y., Mizuma, H., and Nakanishi, S. (2005) Enhanced cocaine responsiveness and impaired motor coordination in metabotropic glutamate receptor subtype 2 knockout mice, *Proc. Natl. Acad. Sci. U S A*, 102: 4170-4175.
- Miyamoto, T., Morita, K., Takemoto, D., Takeuchi, K., Kitano, Y., Miyakawa, T., Nakayama, K., Okamura, Y., Sasaki, H., Miyachi, Y., Furuse, M., and Tsukita, S. (2005) Tight Junctions in Schwann Cells of Peripheral Myelinated Axons: A Lesson from Claudin-19-deficient Mice, *J. Cell Biol.* 169: (3) 527-538.

Kanatsu-Shinohara, M., Toyokuni, S. and Shinohara, T. (2005) Genetic selection of mouse male germline stem cells in vitro: Offspring from single stem cells. *Biol. Reprod.* 72, 236-240.

Chuma, S., Kanatsu-Shinohara, M., Inoue, K., Ogonuki, N., Miki, H., Toyokuni, S., Hosokawa, M., Nakatsuji, N., Ogura, A. and Shinohara, T. (2005) Spermatogenesis from epiblast and primordial germ cells following transplantation into postnatal mouse testis. *Development* 132, 117-122 .

Kanatsu-Shinohara, M., Miki, H., Inoue, K., Ogonuki, N., Toyokuni, S., Ogura, A. and Shinohara, T. (2005) Long-term culture of mouse male germline stem cells under serum- or feeder-free conditions. *Biol. Reprod.* 72, 985-991.

Kanatsu-Shinohara, M., Miki, H., Inoue, K., Ogonuki, N., Toyokuni, S., Ogura, A. and Shinohara, T. (2005) Germline niche transplantation restores fertility in infertile mice. *Hum. Reprod.* 20, 2376-2382.

Kanatsu-Shinohara, M., Ogonuki, N., Iwano, T., Lee, J., Kazuki, Y., Inoue, K., Miki, H., Takehashi, M., Toyokuni, S., Shinkai, Y., Oshimura, M., Ishino, F., Ogura, A. and Shinohara, T. (2005) Genetic and epigenetic properties of mouse male germline stem cells during long-term culture. *Development* 132, 4155-4163.