

## 平成13年度・心筋症班会議・研究成果の刊行（山口 巖；筑波大学）

「雑誌」を以下に記す。

1. Kakinuma Y, Miyauchi T, Yuki K, Murakoshi N, Goto K, Yamaguchi I. Novel molecular mechanism of increased myocardial endothelin-1 expression in the failing heart involving the transcriptional factor hypoxia-inducible factor-1  $\alpha$  induced for impaired myocardial energy metabolism. *Circulation* 103(19):2387-2394, 2001.
2. Nishi I, Iida K, Kawano S, Masumi T, Yamaguchi I. Using isoproterenol stress echocardiography to predict the response to carvedilol in patients with dilated cardiomyopathy. *Japanese Circulation Journal* 65:514-518, 2001.
3. Nishi I, Iida K, Kawano S, Masumi T, Yamaguchi I. Impaired ability to secrete atrial natriuretic peptide in response to isoproterenol infusion in patients with dilated cardiomyopathy. *Journal of Cardiology* 37:11-17, 2001.
4. Iemitsu M, Miyauchi T, Maeda S, Sakai S, Kobayashi T, Fujii N, Miyazaki H, Matsuda M, Yamaguchi I. Physiological and pathological cardiac hypertrophy induce different molecular phenotypes in the rat. *American Journal of Physiology* 281(6): R2029-2036, 2001.
5. Yuki K, Miyauchi T, Kakinuma Y, Murakoshi N, Maeda S, Goto K, Yamaguchi I, Suzuki T. Endothelin-1 production is enhanced by rotenone, a mitochondrial complex I inhibitor, in cultured rat cardiomyocytes. *Journal of Cardiovascular Pharmacology* 38(6): 850-858, 2001.
6. Ueno M, Miyauchi T, Sakai S, Yamauchi-Kohno R, Goto K, Yamaguchi I. A combination of oral endothelin-A receptor antagonist and oral prostacyclin analogue is superior to each drug alone in ameliorating pulmonary hypertension in rats. *Journal of the American College of Cardiology* 40 (1):175-81, 2002.
7. Sakai S, Miyauchi T, Irukayama-Tomobe Y, Ogata T, Goto K, Yamaguchi I. Peroxisome proliferator-activated receptor- $\gamma$  activators inhibit endothelin-1-related cardiac hypertrophy in rats. *Clinical Science* 103 (Suppl.48):16S-20S, 2002.
8. Iemitsu M, Miyauchi T, Maeda S, Tanabe T, Irukayama-Tomobe Y, Goto K, Matsuda M, Yamaguchi I. Effects of aging and subsequent exercise training on gene expression of endothelin-1 in rat heart. *Clinical Science* 103 (Suppl.48):152S-157S, 2002.

9. Ogata T, Miyauchi T, Sakai S, Irukayama-Tomobe Y, Goto K, Yamaguchi I. Stimulation of peroxisome-proliferator-activated receptor  $\alpha$  (PPAR  $\alpha$ ) attenuates cardiac fibrosis and endothelin-1 production in pressure-overloaded rat hearts. *Clinical Science* 103 (Suppl.48):284S-288S, 2002.
  
10. Murakoshi N, Miyauchi T, Kakinuma Y, Ohuchi T, Goto K, Yanagisawa M, Yamaguchi I. Vascular endothelin-B receptor system in vivo plays a favorable inhibitory role in vascular remodeling after injury revealed by endothelin-B receptor-knockout mice. *Circulation* 106 (15):1991-1998, 2002.
  
11. Maeda S, Miyauchi T, Iemitsu M, Tanabe T, Irukayama-Tomobe Y, Goto K, Yamaguchi I, Matsuda M. Involvement of endogenous endothelin-1 in exercise-induced redistribution of tissue blood flow: An endothelin receptor antagonist reduces the redistribution. *Circulation* 106 (17):2188-2193, 2002.

研究成果の刊行

書籍

著者氏名	論文タイトル名	書籍全体の編者名	書籍名	出版者名	出版地	出版年	ページ
Kawada T, Nakatsuru Y, Sakamoto A, Koizumi T, Shin WS, Nakazawa M, Suzuki J, Nakajima T, Uehara Y, Takato T, Satoh T, Ishikawa T, Toyooka T.	<i>In vivo</i> gene supplementation for the therapy of cardiomyopathy.	A. Kitabatake, S. Heart Sasayama, G. S. Francis	<i>Failure in Cardiology</i>	Springer	Berlin	2000	199-208
Shin WS, Hemmi C and Toyooka T.	Coculture and cross talk between endothelial cells and vascular smooth muscle cells mediated by intracellular $Ca^{2+}$ .	C. Wise	<i>Methods in Molecular Biology</i> .	Medical Research Council Press	London	2001	347-357

雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Suzuki J-i, Shimamoto R, Nishikawa J, Yamazaki T, Tsuji T, Nakamura F, Shin WS, Nakajima F, Toyooka T, and Ohotomo K.	Morphological onset and early diagnosis in apical hypertrophic cardiomyopathy.	<i>J. Am. Coll. Cardiol.</i>	33	146-151	1999
Kawada T, Nakatsuru Y, Sakamoto A, Koizumi T, Shin WS, Okai-Matsuo Y, Suzuki J, Uehara Y, Nakazawa M, Satoh H, Ishikawa T, and Toyooka T.	Strain- and age-dependent loss of sarcoglycan complex in cardiomyopathic hamster hearts and its reexpression by $\delta$ -sarcoglycan gene transfer <i>in vivo</i> .	<i>F.E.B.S. Lett.</i>	458	405-408	1999
Kawada T, Shin WS, Nakatsuru Y, Koizumi T, Sakamoto A, Nakajima T, Nakazawa M, Sato H, Takato T, Ishikawa T, and Toyooka T.	Precise identification of gene-products in hearts after <i>in vivo</i> gene transfection, using Sendai virus-coated proteoliposomes.	<i>Biochem. Biophys. Res. Commun.</i>	259	408-413	1999
Iida H, Morita T, Suzuki E, Iwasawa K, Toyooka T, et al.	Hypoglycemia induced by interaction between clathromycin and disopyramide.	<i>Jpn. Heart J.</i>	40	91-96	1999
Hirawa N, Uehara Y, Kawabata Y, Numabe A, Ogawa N, Gomi T, Ikeda T, Goto A, Toyooka T, et al.	High salt intake potentiates the renal vascular and glomerular damage caused by subpressor dose of angiotensin II in the uni-nephrectomized rats.	<i>J. Hypertens.</i>	17	923-932	1999
Hirawa N, Uehara Y, Kawabata Y, Numabe A, Gomi T, Ikeda T, Suzuki T, Goto A, Toyooka T, et al.	Long-term inhibition of renin-angiotensin system sustains memory function in aged Dahl rats.	<i>Hypertension</i>	34	496-502	1999
Asano M, Nakajima T, Iwasawa K, Asakura Y, Morita T, Nakamura F, Tomaru T, Wang YP, Goto A, Toyooka T, et al.	Eicosapentaenoic acid inhibits vasopressin-activated $Ca^{2+}$ influx and cell proliferation in rat aortic smooth muscle cell line.	<i>Eur. J. Pharmacol.</i>	379	199-209	1999

Kawada T, Nakatsuru Y, Sakamoto A, Koizumi T, Shin WS, Okai-Matsuo Y, Suzuki J, Uehara Y, Nakazawa M, Satoh H, Ishikawa T, and Toyo-oka T.	Strain- and age-dependent loss of sarcoglycan complex in cardiomyopathic hamster hearts and its reexpression by $\delta$ -sarcoglycan gene transfer in vivo.	<i>F.E.B.S.Lett.</i>	458	405-408	1999
Kawaguchi H, Shin WS, Okai-Matsuo Y, Nakajima T, Suzuki J, Uehara Y, and Toyo-oka T.	Apoptotic cell death in acute myocardial injury induced by isoproterenol is mediated by nitric oxide.	<i>J. Pharmacol. Cardiovasc.</i>	34 (Sup pl.4)	S25-S28	1999
Suzuki J, Shin WS, Shimamoto R, Yamazaki T, Tsuji T, Nakajima T, Tomaru T, Toyo-oka T, <i>et al.</i>	Clinical implication of left precordial negative T wave inversions in the presence of complete right bundle branch block	<i>Jpn. Heart J.</i>	40	745-753	1999
Hikiji H, Shin WS, Koizumi T, Takato T, Susami T, Koizumi Y, and Toyo-oka T.	Peroxy-nitrite production by TNF- $\alpha$ and IL-1 $\beta$ .	<i>Am. J. Physiol.</i>	278	E1031-E1037	2000
Nakajima T, Okuda Y, Chisaki K, Shin WS, Iwasawa K, Morita T, Matsumoto A, Suzuki S, Yamada N, Toyo-oka T, <i>et al.</i>	Bile acids increase intracellular $Ca^{2+}$ concentration and NO production in vascular endothelial cells.	<i>Br.J.Pharmacol.</i>	130	1457-1467	2000
Chen J, Wang YP, Nakajima T, Iwasawa K, Hikiji H, Sunamoto M, Yoshida Y, Sakaki Y, and Toyo-oka T.	Autocrine action and its underlying mechanism of nitric oxide on intracellular $Ca^{2+}$ homeostasis in vascular endothelial cells.	<i>J.Biol.Chem.</i>	275	28739-28749	2000
Shin WS, Tanaka M, Suzuki J, and Toyo-oka T.	A homoplamic mitochondrial DNA mutation with characteristic D-loop sequence as a risk factor cardioselective expression of myopathy.	<i>Am.J.Hum.Genet.</i>	67	1617-1620	2000
Suzuki J, Nagai R, Nishikawa J, Ohtomo K, Toyo-oka T, and Omata M.	Evaluation of the heart with magnetic resonance imaging.	<i>Jpn. Heart J.</i>	41	417-424	2000
Shin WS, Tanaka M, Suzuki J, Toyo-oka T.	A homoplamic mitochondrial DNA mutation with characteristic D-loop sequence as a risk factor cardioselective expression of myopathy.	<i>Am.J.Hum.Genet.</i>	67	1617-1620	2000
Xi H, Shin WS, Suzuki J, Nakajima T, Kawada T, Uehara Y, Nakazawa M and Toyo-oka T.	Dystrophin disruption might be related to myocardial cell apoptosis caused by isoproterenol.	<i>J.Cardiovasc.Pharmacol.</i>	36 (Sup pl.2)	S25-S29	2000
Suzuki J, Shimamoto R, Yamazaki T, Tshuji T, Nishikawa J, Nakamura F, Sugiura S, Takahashi T, Nakajima T, Toyo-oka T, <i>et al.</i>	Screening and/or follow-up with coronary magnetic resonance angiography.	<i>Radiology</i>	6	189-197	2000
Kawada T, Sakamoto A, Nakazawa M, Urabe M, Masuda F, Hemmi C, Wang Y, Shin WS, Nakatsuru Y, Sato H, Ozawa K, Toyo-oka T.	Morphological and physiological restorations of hereditary form of dilated cardiomyopathy by somatic gene therapy.	<i>Biochem.Biophys. Res.Commun.</i>	284	431-435	2001
Xi H, Shin WS, Suzuki J, Nakajima T, Kawada T, Uehara Y, Nakazawa M and Toyo-oka T.	Dystrophin disruption might be related to myocardial cell apoptosis caused by isoproterenol.	<i>J.Cardiovasc.Pharmacol.</i>	36 (Sup pl.2)	S25-S29	2000
Sasaki S, Ushio F, Amano K, Morihara M, Todoroki T, Uehara Y and Toyo-oka T.	Serum biomarker-based validation of a self-administered diet history questionnaire for Japanese subjects.	<i>J.Nutr.Sci.Vitam.inol.</i>	46	285-296	2000
Wang Y, Chen J, Wang Y, Taylor CW, Hirata Y, Hagiwara H, Mikoshiba K, Toyo-oka T. <i>et al.</i>	Crucial role of type 1, but not type 3, inositol 1,4,5-trisphosphate IP <sub>3</sub> receptors in IP <sub>3</sub> -induced $Ca^{2+}$ release, capacitative $Ca^{2+}$ entry, and proliferation of A7r5 vascular smooth muscle cells.	<i>Circ.Res.</i>	88	202-209	2001

Kawada T, Nakazawa M, Sakamoto A, Urabe M, Wang Y, Shin WS, Sato H, Monahan J, Ozawa K, and Toyono-oka T. 豊岡照彦ら	Rescue of hereditary form of dilated cardiomyopathy by rAAV vector-mediated somatic gene therapy.	<i>Proc.Natl.Acad.Sci.USA</i>	901-906	2002
豊岡照彦	特発性心筋症の新しい展開	日本臨床	1665-1675	1999
豊岡照彦	心不全治療のガイドライン	治療学	658-663	2000

## 雑誌

発表者氏名	論文タイトル名	発表雑誌名	巻号	ページ	出版年
S Hirotsu, K Otsu, K Nishida, Y Higuchi, T Morita, H Nakayama, O Yamaguchi, T Mano, Y Matsumura, H Ueno, M Tada, M Hori	Involvement of NF- $\kappa$ B and ASK1 in G-Protein Coupled Receptor Agonist-Induced Cardiomyocyte Hypertrophy	Circulation	105	509-515	2002
Y Higuchi, K Otsu, K Nishida, S Hirotsu, H Nakayama, O Yamaguchi, Y Matsumura, H Ueno, M Tada, M Hori	Involvement of Reactive Oxygen Species-mediated NF- $\kappa$ B Activation in TNF- $\alpha$ - induced Cardiomyocyte Hypertrophy	J Mol Cell Cardiol	34	233-240	2002
M Date, T Morita, N Yamashita, K Nishida, O Yamaguchi, Y Higuchi, S Hirotsu, Y Matsumura, M Hori, M Tada, K Otsu	The Antioxidant N-2-Mercaptopropionyl Glycine Attenuates Left Ventricular Hypertrophy in <i>in vivo</i> Murine Pressure- Overload Model	J Am Coll Cardiol	39	907-912	2002

## 書籍

著者氏名	論文タイトル名	書籍全体の編集者名	書籍名	出版社名	出版地	出版年	ページ
Kimura A, Hayashi T, Itoh-Satoh M, Arimura T, Lee WH, Lee SY, Park JE	Molecular etiology of idiopathic cardiomyopathy: Identification of novel disease genes for hypertrophic cardiomyopathy and dilated cardiomyopathy	Matsumori A	Proceedings of ICCHF	Klumer Academic Publishers	Boston	2002	In press
Kimura A, Itoh-Satoh M, Hayashi T, Takahashi M, Arimura T, Yasunami M, Lee SY, Hwang TH, Lee WH, Park JE	Mutational profiles and molecular etiologies of hypertrophic cardiomyopathy and dilated cardiomyopathy in Asian populations	Dhalla NS	Cardiovascular Remodeling and Failure	Klumer Academic Publishers	Boston	2002	In press

## 雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Kimura A, Itoh-Satoh M, Hayashi T, Takahashi M, Arimura T	Molecular etiology of idiopathic cardiomyopathy in Asian populations	J Cardiol.	37 (Suppl.1)	139-146	2001
Shirai N, Makita N, Sasaki K, Yokoi H, Sakuma I, Sakurada H, Akai J, Kimura A, Hiraoka M, Kitabatake A	Implication of an overlapping Na channelopathy in an idiopathic ventricular fibrillation associated with a cardiac Na channel mutation	Cardiovasc Res.	53 (2)	348-354	2002
Itoh-Satoh M, Hayashi T,	Titin mutations as the molecular basis for dilated cardiomyopathy	Biochem. Biophys. Res. Commun.	291 (2)	385-393	2002

Nishi H, Koga Y. Arimura T, Ueda K, Hohta S. Nouchi T, Takahashi M, Hiroe M, Marumo F, Imaizumi T, Yasunami M. <u>Kimura A</u>					
Kuroda N, Ohnishi Y. <u>Kimura A</u> , Yokoyama M	Clinical significance of T-wave alternans in hypertrophic cardiomyopathy	Circ. J.	66 (5)	457-462	2002



## 書籍

発表者氏名	論文タイトル名	編集者名	書籍名	出版社	出版地	出版年	ページ
なし							

## 雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
Fuku, N., Oshida, Y., Takeyasu, T., Guo, L.-J., Kurata, M., Yamada, Y., Sato, Y., and Tanaka, M.	Mitochondrial ATPase subunit 6 and cytochrome b gene polymorphisms in young obese adults	Biochem Biophys Res Commun	290	1199-1205	2002
Tanaka, M., Borgeld, H.-J., Zhang, J., Gong, J.-S., Yoned, M., Maruyama, W., Naoi, M., Ibi, T., Sahashi, K., Shamoto, M., Fuku, N., Kurata, M., Yamada, Y., Nishizawa, K., Akao, Y., Ohishi, N., Miyabayashi, S., Umemoto, H., Muramatsu, T., Furukawa, K., Kikuchi, A., and Yagi, K.	Gene therapy of mitochondrial disease by delivering restriction endonuclease SmaI into mitochondria	J Biomed Sci	in press		2002
Tanaka, M., Fuku, N., Takeyasu, T., Guo, L.-J., Hirose, R., Kurata, M., Borgeld, H.-J., Yamada, Y., Maruyama, W., Arai, Y., Hirose, N., Oshida, Y., Sato, Y., Hattori, N., Mizuno, Y., and Yagi, K.	Golden mean to longevity: Rareness of mitochondrial cytochrome b variants in centenarians but not in patients with Parkinson's disease	J Neurosci Res	in press		2002
Yamada, Y., Fujisawa, M., Ando, F., Niino, N., Tanaka, M., and Shimokata, H.	Association of a polymorphism of the transforming growth factor-beta1 gene with blood pressure in Japanese individuals	J Hum Genet	47	243-8.	2002
Yamamoto, T., Maruyama, W., Kato, Y., Yi, H., Shamoto-Nagai, M., Tanaka, M., Sato, Y., and Naoi, M.	Selective nitration of mitochondrial complex I by peroxynitrite: involvement in mitochondria dysfunction and cell death of dopaminergic SH-SY5Y cells	J Neural Transm	109	1-13	2002
Matsunaga, H., Tanaka, Y., Tanaka, M., Gong,	Antiatherogenic mitochondrial genotype in patients with type 2 diabetes	Diabetes Care	24	500-503	2001

J.S., Zhang, J., Nomiyama, T., Ogawa, O., Ogihara, T., Yamada, Y., Yagi, K., and Kawamori, R.					
Mizutani, J., Chiba, T., Tanaka, M., Higuchi, K., and Mori, M.	Unique mutations in mitochondrial DNA of senescence-accelerated mouse (SAM) strains	J Hered	92	352-355	2001
Sahashi, K., Yoneda, M., Ohno, K., Tanaka, M., and Ibi, T.	Functional characterisation of mitochondrial tRNA(Tyr) mutation (5877-->GA) associated with familial chronic progressive external ophthalmoplegia	J Med Genet	38	703-705	2001
Tanaka, M.	Mitochondrial DNA Polymorphisms and Aging	Environ Mutagen Res	23	197-205	2001
Terasaki, F., Tanaka, M., Kawamura, K., Kanzaki, Y., Okabe, M., Hayashi, T., Shimomura, H., Ito, T., Suwa, M., Gong, J.S., Zhang, J., and Kitaura, Y.	A case of cardiomyopathy showing progression from the hypertrophic to the dilated form: association of Mt8348A->G mutation in the mitochondrial tRNA(Lys) gene with severe ultrastructural alterations of mitochondria in cardiomyocytes	Jpn Circ J	65	691-694	2001
Tsuboi, M., Hisatome, I., Morisaki, T., Tanaka, M., Tomikura, Y., Takeda, S., Shimoyama, M., Ohtahara, A., Ogino, K., Igawa, O., Shigemasa, C., Ohgi, S., and Nanba, E.	Mitochondrial DNA deletion associated with the reduction of adenine nucleotides in human atrium and atrial fibrillation	Eur J Clin Invest	31	489-96.	2001
Umetsu, K., Tanaka, M., Yuasa, I., Saitou, N., Takeyasu, I., Fuku, N., Naito, E., Ago, K., Nakayashiki, N., Miyoshi, A., Kashimura, S., Watanabe, G., and Osawa, M.	Multiplex amplified product-length polymorphism analysis for rapid detection of human mitochondrial DNA variations	Electrophoresis	22	3533-3538	2001
Yamada, Y., Ichihara, S., Izawa, H., Tanaka, M., and Yokota, M.	Association of a G994->T (Val279->Phe) polymorphism of the plasma platelet-activating factor acetylhydrolase gene with myocardial damage in Japanese patients with nonfamilial hypertrophic cardiomyopathy	J Hum Genet	46	436-441	2001
Yamada, Y., Miyauchi, A., Takagi, Y., Tanaka, M., Mizuno, M., and Harada, A.	Association of the C-509->T polymorphism, alone or in combination with the T869->C polymorphism, of the transforming growth factor-beta1 gene with bone mineral density and genetic susceptibility to osteoporosis in Japanese women	J Mol Med	79	149-156	2001

## 研究成果の刊行に関する一覧表

雑誌

発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年
中谷武嗣、笹子佳門、花谷彰久、小林順二郎、坂東 興、小野安生、庭屋和夫、田鎖治、佐藤長人、駒村和雄、公文啓二、由谷親夫、八木原俊克、宮武邦夫、北村惣一郎	国立循環器病センターでの経験 特集:わが国の心臓移植の現状	今日の移植	14	418-424	2001年7月
Kitamura S, Nakatani T, Bando K, Sasako Y, Kobayashi J and Yagihara T.	Modification of bicaval anastomosis technique for orthotopic heart transplantation	Ann Thorac Surg	72	1405-1406	2001年5月
中谷武嗣、笹子佳門、花谷彰久、小林順二郎、坂東 興、小野安生、庭屋和夫、田鎖治、駒村和雄、公文啓二、八木原俊克、宮武邦夫、北村惣一郎	HANP フォーラム 2001 心不全治療の cardioprotection - 慢性期から急性期へ - 末期的心不全に対する外科的治療法としての左心補助人工心臓と心臓移植	心臓	34	54-57	2002年1月15日
大草知子、原田雅彦、廣 高史、村田高茂、美甘章仁、濱野公一、江里健輔、山田倫生、小川 宏、中谷武嗣、笹子佳門、由谷親夫、北村惣一郎、松崎益徳	心臓移植術を施行しえた劇症型急性心筋炎後拡張型心筋症の1例	Journal of Cardiology	39	39-46	2002年1月