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## **CURRICULUM VITAE**

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**Nationality:** Japanese

**Education:**

1973-1979 Nippon Medical School, Tokyo, Japan

**Degree:** M.D., May 25, 1979, Japanese Ministry of Health and Welfare  
Ph.D., February 1, 1987, Hamamatsu University School of Medicine

**Postgraduate Training and Academic Appointments:**

1979-1981 Junior Resident, First Department of Medicine, Hamamatsu University  
School of Medicine at Hamamatsu  
1981-1982 Physician in Medicine, National Tenryu Hospital at Tenryu Hospital  
1982-1985 Senior Resident, First Department of Medicine, Hamamatsu University  
School of Medicine at Hamamatsu  
1985-1987 Instructor, First Department of Medicine, Hamamatsu University School  
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1987-1989 Visiting Fellow, National Institute on Aging, NIH at Baltimore, MD, USA  
1989-1992 Instructor, First Department of Medicine, Hamamatsu University School of Medicine at Hamamatsu  
1992-1993 Assistant Professor, First Department of Medicine, Hamamatsu University School of Medicine at Hamamatsu  
1993-2006 Associate Professor, Department of Clinical nutrition, School of Food and Nutritional Sciences, University of Shizuoka at Shizuoka  
1993-2006 Associate Professor, Department of Clinical nutrition, Graduate School of Nutritional and Environmental Sciences, University of Shizuoka  
2006-present Associate Professor, Department of Clinical nutrition, School of Food and Nutritional Sciences, University of Shizuoka at Shizuoka  
2006-present Associate Professor, Department of Clinical nutrition, Graduate School of Nutritional and Environmental Sciences, University of Shizuoka  
2007-2008 Co-director, Health Support Center, University of Shizuoka  
2008-present Director, Health Support Center, University of Shizuoka  
2008-present Industrial Physician, University of Shizuoka

Certification:

1991 Board Certification in Internal Medicine  
1993 Board Certification in Nephrology  
2008 Board Certification in Clinical Nutrition

Memberships in Professional and Scientific Societies:

Fellow

Japanese Society of Nephrology

Member

International Society of Nephrology  
American Society of Nephrology  
Japanese Society of Internal Medicine  
Japanese Society of Clinical Nutrition

Editorial Position

Deputy Editor, Nutrition Journal  
Ad hoc reviewer, Clinical Experimental Nephrology  
Ad hoc reviewer, Kidney International  
Ad hoc reviewer, Nephrology Dialysis Transplantation

Field of Interest: Clinical Nutrition  
Nephrology

## PUBLICATIONS (articles in peer-reviewed journals)

- 1 Hishida A, Honda N, Kumagai H, Sudoh M, Nagase M. Diurnal variation of urinary potassium excretion in chronic renal insufficiency. *Mineral Electrolyte Metab* 7: 20-27, 1982
- 2 Nagase M, Kumagai H, Kobayashi S, Kimura M, Honda N. Charge-based selectivity of the glomerular wall. *Jpn J Nephrol* 25: 1143-1156, 1983
- 3 Nagase M, Kumagai H, Honda N. Suppression of proteinuria by dipyridamole in rats with amino-nucleoside nephropathy. *Renal Physiol* 7: 218-226, 1984
- 4 Kumagai H, Hishida A, Honda N. Influence of alternate day prednisolone administration on urinary electrolyte excretion. *Mineral Electrolyte Metab* 11: 52-56, 1985
- 5 Kumagai H, Hishida A, Nagase M, Honda N. Mechanisms of steroid-enhanced proteinuria in nephrotic syndrome. *Jpn J Nephrol* 29: 227-281, 1987
- 6 Kumagai H, Sakamoto H, Filburn CR, Guggino S, Sacktor B. Neurotransmitter regulation of cytosolic calcium in osteoblast-like bone cells. *Calcified Tissue Int* 45: 251-254, 1989
- 7 Kumagai H, Sacktor B, Filburn CR. Purinergic regulation of cytosolic calcium and phosphoinositide metabolism in rat osteoblast-like osteosarcoma cells. *J bone and mineral res* 6: 697-708, 1991
- 8 Hishida A, Kumagai H, Ohura M, Isozaki T, Honda N. The role of atrial natriuretic peptide in the natriuretic response to acute saline loading. *Diuretics* 4: 669-674, 1993
- 9 Hishida A, Kumagai H, Ohura M, Isozaki T, Honda N. The influence of posture on the natriuretic response to acute saline loading in the aged. *Diuretics* 4:719-722, 1993
- 10 Furuya R, Kumagai H, Ikegaya N, Kobayashi S, Kimura M, Hishida A, Kaneko E. Reversible acute renal failure in idiopathic nephrotic syndrome. *Internal Medicine* 32: 31-35, 1993
- 11 Katoh A, Ohtake T, Furuya R, Nakajima T, Ohura M, Kumagai H, Kimura M, Hishida A, Kaneko E. Spontaneous bacterial peritonitis in an adult patient with nephrotic syndrome. *Internal medicine* 32: 719-721, 1993
- 12 Ikegaya N, Nagase M, Honda N, Kumagai H, Hishida A. Correlation between histological features and glomerular permeability in membranous nephropathy and IgA nephropathy. *J Lab Clin Med* 123: 94-101, 1994
- 13 Kato A, Hishida A, Ishibashi R, Nakajima T, Ohura M, Furuya R, Kumagai H, Kimura M, Kaneko E. Nephrogenic diabetes insipidus associated with bilateral ureteral obstruction. *Internal Medicine* 33: 231-233, 1994
- 14 Kato A, Hishida A, Kumagai H, Furuya R, Nakajima T, Honda N. Erythropoietin production in patients with chronic renal failure. *Renal Failure* 16: 645-651, 1994
- 15 Yamashita F, Kimura M, Kumagai H, Ohtake T, Fujigaki Y, Hishida A. Light chain nephropathy with remarkable accumulation of multinucleated giant cells in the kidney. *Jpn J Nephrol* 36: 1276-1281, 1995

- 16 Isozaki T, Kumagai H, Ohura M, Hishida A. Natriuretic response to acute sodium chloride and sodium bicarbonate infusions in human. *Mineral Electrolyte Metab* 21: 383-390, 1996
- 17 Ikegaya N, Hishida A, Sawada K, Furuhashi M, Maruyama Y, Kumagai H, Kobayashi S, Yamamoto T. Ultrasonographic evaluation of the carpal tunnel syndrome in hemodialysis patients. *Clin Nephrol* 117: 183-191, 1996
- 18 Mizuno S, Fujita K, Furuya R, Hishida A, Ito H, Tashima Y, Kumagai H. Association of HSP73 with the acquired resistance to uranyl acetate-induced acute renal failure. *Toxicology* 117: 183-191, 1997
- 19 Furuya R, Kumagai H, Hishida A. Acquired resistance to rechallenge injury with uranyl acetate in LLC-PK1 cells. *J Lab Clin Med* 129: 347-355, 1997
- 20 Kaizu Y, Kimura M, Yoneyama T, Miyaji K, Hibi I, Kumagai H. Interleukin-6 may mediate malnutrition in chronic hemodialysis patients. *Am J Kidney Dis* 31: 93-100, 1998
- 21 Kataoka H, Kumagai H, Hanai H. Treating familial Mediterranean fever with prazosin hydrochloride. *Ann Intern Med* 129: 424-425, 1998
- 22 Ohkawa S, Ohishi K, Yoneyama T, Hishida A, Kumagai H. The effect of eliminating interfering substances by solid-phase extraction and sample-pH adjustment in the colorimetric assay of urinary nitrite and nitrate. *Anal Biochem* 258: 379-381, 1998
- 23 Kaizu Y, Tsunega Y, Yoneyama T, Sakao T, Hibi I, Miyaji K, Kumagai H. Overweight as another nutritional risk factor for the long-term survival of non-diabetic hemodialysis patients. *Clin Nephrol* 50: 44-50, 1998
- 24 Yoneyama T, Ohkawa S, Watanabe T, Odamaki M, Kumagai H, Kimura M, Hishida A. The contribution of nitric oxide to renal vascular wall thickening in rats with L-NAME-induced hypertension. *Virchows Arch.* 433: 549-557, 1998
- 25 Odamaki M, Furuya R, Yoneyama T, Nishikino M, Hibi I, Miyaji K, Kumagai H. Association of the serum leptin concentration with weight loss in chronic hemodialysis patients. *Am J Kidney Dis* 33: 361-368, 1999
- 26 Kumagai H, Kikuchi Y, Kumeta N, Kimura M, Sakai T. Low protein diet exacerbates NO synthase inhibitor-induced hypertension in rats. *Clin Exp Nephrol* 3: 34-40, 1999
- 27 Yonemura K, Hishida A, Kimura M, Watanabe T, Kumagai H. Prednisolone induces an increase in serum calcium concentration: possible involvement of the kidney, the bone, and the intestine. *Cacif Tissue Int* 65: 267-271, 1999
- 28 Odamaki M, Furuya R, Ohkawa S, Yoneyama T, Nishikino M, Hishida A, Kumagai H. Altered abdominal fat distribution and its association with the serum lipid profile in non-diabetic hemodialysis patients. *Nephrol Dial Transplant* 14: 2427-2432, 1999
- 29 Ohkawa S, Odamaki M, Yoneyama T, Hibi I, Miyaji K, Kumagai H. Standardized thigh muscle area measured by computed axial tomography as an alternate indicator of muscle mass in the nutritional assessment of hemodialysis patients. *Am J Clin Nutr* 71:485-490, 2000

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- 32 Kaizu Y, Ohkawa S, Kumagai H. Muscle mass index in hemodialysis patients: a comparison of indices obtained by routine clinical examinations. *Nephrol Dial Transplant* 17: 442-448, 2002
- 33 Furuya R, Kumagai H, Sakao T, Hishida A. Potassium lowering effect of mineralocorticoid therapy in patients undergoing hemodialysis. *Nephron* 92: 576-581, 2002
- 34 Kato A, Odamaki M, Takita T, Maruyama Y, Kumagai H, Hishida A. Association between interleukin-6 and carotid atherosclerosis in hemodialysis patients. *Kidney Int* 61: 1143-1152, 2002
- 35 Teratani T, Watanabe T, Yamahara K, Kumagai H, Ishikawa A, Arai K, Nozawa R. Restricted expression of calcium-binding protein S100A5 in human kidney. *Biochem Biophys Res Commun* 29: 623-627, 2002
- 36 Teratani T, Watanabe T, Kuwahara F, Kumagai H, Kobayashi S, Aoki U, Ishikawa A, Arai K, Nozawa R. Induced transcriptional expression of calcium-binding protein S100A1 and S100A10 genes in human renal cell carcinoma. *Cancer letters* 175: 71-77, 2002
- 37 Kato A, Takita T, Maruyama Y, Kumagai H, Hishida A. Impact of carotid atherosclerosis on long-term mortality in chronic hemodialysis patients. *Kidney Int* 64: 1472-1479, 2003
- 38 Kaizu Y, Ohkawa S, Odamaki M, Ikegaya N, Hibi I, Miyaji K, Kumagai H. Association between inflammatory mediators and muscle mass in chronic hemodialysis patients. *Am J Kidney Dis* 42: 295-302, 2003
- 39 Kato A, Odamaki M, Yamamoto T, Yonemura K, Maruyama Y, Kumagai H, Hishida A. Influence of body composition on 5 year mortality in patients on regular haemodialysis. *Nephrol Dial Transplant* 18: 333-340, 2003
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- 41 Ohkawa S, Yoneyama T, Shimoi K, Takita T, Maruyama Y, Kumagai H. Pro-oxidative effect of alpha-tocopherol in the oxidation of LDL isolated from co-antioxidant-depleted non-diabetic hemodialysis patients. *Atherosclerosis* 176:411-8, 2004
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- 44 Endoh M, Odamaki M, Ikegaya N, Kumagai H. Factors Involved in the Development of Hypertension Induced by a Low- Protein Diet in Rats with Renal Injury. *Kidney Blood Press Res.* 27: 1-9, 2004
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- 49 Furuya R, Odamaki M, Kumagai H, Hishida A. Impact of angiotensin II receptor blocker on plasma levels of adiponectin and advanced oxidation protein products in peritoneal dialysis patients. *Blood Purif.* 24:445-450, 2006
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- 51 R. Furuya, M. Odamaki, H. Kumagai, A. Hishida: Beneficial effect of icodextrin on plasma level of adipocytokines in peritoneal dialysis patients. *Nephrol Dial Transplant* 21: 494-498, 2006
- 52 Odamaki M, Furuya R, Kinumura Y, Ikegaya N, Kumagai H. Association between plasma adiponectin concentration and visceral fat accumulation in hemodialysis patients. *Nephron* 102: c8-c13, 2006
- 53 Kumagai H. Nutritional therapy for patients undergoing hemodialysis. In "Nutrition and Kidney Disease". (H. Suzuki, and P.L. Kimmel, eds.) Karger, Basel. pp. 59-71, 2007
- 54 Kato A, Takita T, Furuhashi M, Maruyama Y, Kumagai H, Hishida A. Blood monocyte count is a predictor of total and cardiovascular mortality in hemodialysis patients. *Nephron Clin. Pract.* 110:c235-243, 2008
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- 57 Yamada K, Furuya R, Takita T, Maruyama Y, Yamaguchi Y, Ohkawa S and Kumagai H. Simplified nutritional screening tools for maintenance hemodialysis patients. *Am J Clin Nutr* 87: 106-113, 2008

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- 59 Furuya R, Kumagai H, Odamaki M, Takahashi M, Miyaki A, Hishida A. Impact of residual renal function on plasma levels of advanced oxidation protein products and pentosidine in peritoneal dialysis patients. *Nephron Clin. Pract.* 112: c255-261, 2009
- 60 Kato A, Takita T, Furuhashi M, Kumagai H, Hishida A. A Small Reduction in the Ankle-Brachial Index Is Associated with Increased Mortality in Patients on Chronic Hemodialysis. *Nephron Clin. Pract.* 114: c29-37, 2009
- 61 Saito R, Ohkawa S, Ichinose S, Nishikino M, Ikegaya N, Kumagai H. Validity of mid-arm muscular area measured by anthropometry in nonobese patients with increased muscle atrophy and variation of subcutaneous fat thickness. *Eur J Clin Nutr.* 64: 899-904, 2010
- 62 Tomiyama K, Nakashima H, Arakawa Y, Kumagai H: Mechanism underlying the olfactory disturbance induced by an intraperitoneal injection of tributyltin chloride in rats. *Toxicology.* 276, 110-114, 2010
- 63 Koyama K, Ito A, Yamamoto J, Nishio T, Kajikuri J, Dohi Y, Ohte N, Sano A, Nakamura H, Kumagai H, Itoh T: Randomized controlled trial of the effect of short-term coadministration of methylcobalamin and folate on serum ADMA concentration in patients receiving long-term hemodialysis. *Am J Kidney Dis.* 55, 1069-1078, 2010
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- 65 Matsumoto Y, Mukai M, Arihara K, Saito T, Kumagai H: Ethylene-vinyl alcohol copolymer dialyzer membrane reduces protein oxidation in hemodialysis patients. *Ren Fail*, 33, 382-387, 2011
- 66 Furuya R, Kumagai H, Miyata T, Fukasawa H, Isobe S, Kinoshita N, and Hishida A. High plasma pentosidine level is accompanied with cardiovascular events in hemodialysis patients. *Clin Exp Nephrol.* 16, 421-426, 2012
- 67 Iwata M, Miyashita Y, and Kumagai H. Seasonal variation of endothelium-dependent flow-mediated vasodilation measured in the same subjects. *Am J Cardiovasc Dis.* 2, 111-115, 2012
- 68 Kato A., Takita T., Furuhashi M., Maruyama Y., Miyajima H., and Kumagai H. Brachial-ankle pulse wave velocity and the cardio-ankle vascular index as a predictor of cardiovascular outcomes in patients on regular hemodialysis. *Ther Apher Dial.* 16, 232-241, 2012
- 69 Yoshida T, Kumagai H, Suzuki A, Kobayashi N, Ohkawa S, Odamaki M, Kohsaka T, Yamamoto T, and Ikegaya N. Relaxin ameliorates salt-sensitive hypertension and renal fibrosis. *Nephrol Dial Transplant.* 27, 2190-2197, 2012
- 70 Ohkawa S, Yanagida M, Uchikawa T, Yoshida T, Ikegaya N, Kumagai H. Attenuation of the activated mammalian target of rapamycin pathway might be

associated with renal function reserve by a low-protein diet in the rat remnant kidney model. *Nutr Res.* 33: 761-71, 2013

- 71 Shioya M, Yoshida T, Kasai K, Furuya R, Kato A, Mori N, Matsumoto Y, Kumagai H. Inflammatory factors for hypoalbuminemia in Japanese peritoneal dialysis patients. *Nephrology (Carlton)*. 18: 539-44, 2013
- 72 Kojo G, Yoshida T, Ohkawa S, Odamaki M, Kato A, Takita T, Maruyama Y, Kumagai H. Association of serum total testosterone concentration with skeletal muscle mass in men under hemodialysis. *Int Urol Nephrol*. 2013 Aug 25. [Epub ahead of print]
- 73 Yoshida T, Kumagai H, Kohsaka T, Ikegaya N. Relaxin protects against renal ischemia reperfusion injury. *Am J Physiol Renal Physiol*. 2013 Aug 14. [Epub ahead of print]