## **BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.** 

NAME Hiroko Kodama	Professor,	·		
eRA COMMONS USER NAME Oa		Department of Pediatrics, Teikyo University School of Medicine, Tokyo, Japan		
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)				
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY	
Osaka University, Osaka, Japan	Dr.Med.	1970	Medicine	
Osaka University, Osaka, Japan	PhD	1982	Medicine	

#### A. Positions and Honors.

### **Positions and Employment**

1975-1982 Research Associate, Department of Pediatrics Osaka University, Osaka Japan

1982-1988 Assistant Professor, Department of Pediatrics, Jichi Medical University School of Medicine, Tochigi, Japan

1988-1990 Assistant Professor, Department of Pediatrics, Teikyo University School of Medicine, Tokyo, Japan

1990-2005 Associate Professor, Department of Pediatrics, Teikyo University School of Medicine, Tokyo, Japan

1991-2004 Past-time instructor, Department of Pediatrics Osaka University, Osaka Japan

2001-present Past-time instructor, Department of Developmental medicine, Tokyo University, Tokyo Japan

2005-present Professor, Department of Pediatrics, Teikyo University School of Medicine, Tokyo, Japan

# **Other Experience and Professional Memberships**

2007-present Vice predsident, International Society for Trace Element Research in Humans

2004-2007 Secretary, International Society for Trace Element Research in Humans

2002-present Director, Japan Society for Biomedical Research on Trace Elements

2007-present Director, Japanese Society for Inherited Metabolic Diseases

2003-present Councilor, The Japan Endocrine Society

2003-present Councilor, The Japanese Society of Clinical Nutrition

2003-present Organizer, Japanese Society for Child Nutrition Research

1998-present Councilor, Japanese Society for Pediatric Gastroenterology, Hepatology and Nutrition

1995-present Councilor, The Japanese Society of Child Neurology

1994-present Councilor, Japanese Society for Inherited Metabolic Diseases

2000-present Councilor, The Japanese Society for Pediatric Endocrinology

### Present

The Society for the Study of Inborn Errors of Metabolism, Member

International Child Neurology Association, Member

Japan Pediatric Society, Member

The Japanese Biochemical Society, Member

The Japanese Society for Gene Diagnosis and Therapy, Member

Japan Neuroendocrine Society, Member

International Society for Trace Element Research in Humans, Secretary

The Japan Endocrine Society, Councilor

The Japanese Society of Clinical Nutrition, Councilor

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Principal Investigator/Program Director (Last, First, Middle):

Japanese Society for Child Nutrition Research, Organizer

Japan Society for Biomedical Research on Trace Elements, Director

Japanese Society for Pediatric Gastroenterology, Hepatology and Nutrition, Councilor

The Japanese Society of Child Neurology, Councilor

Japanese Society for Inherited Metabolic Diseases, Councilor

The Japanese Society for Pediatric Endocrinology, Councilor

# **Meeting President**

- 13th Annual Meeting of Japanese Society for Pediatric Gastroenterology, Hepatology and Nutrition 2004
- 12<sup>th</sup> Annual Meeting of Japanese Society for Child Growth 2004
- 45<sup>th</sup> Annual Meeting of Japanese Society of Child Neurology in Kanto 2006
- 19th Annual Meeting of Japan Society for Biomedical Research on Trace Elements 2008
- 51<sup>st</sup> Annual Meeting of the Japanese Society for Inherited Metabolic Disease 8<sup>th</sup> Asian Symposium for Inherited Metabolic Diseases 2009
- 19<sup>th</sup> Annual Meeting of Society for LEC rat 2009
- 6<sup>th</sup> Annual Meeting of Japanese Society for Child Nutrition Research 2009
- B. Selected peer reviewed publications (from 2001)
- 1. **Kodama H**, Fujisawa C Copper Metabolism and inherited copper transport disorders: molecular mechanisms, screening, and treatment Metallomics 1:42-52 2009
- 2. Hikita T, **Kodama H**, Nakamoto N, Kaga F, Amakata K, Ogita K, Kaneko S, Fujii Y, YanagawaY Effective Prophylactic therapy for cyclic vomiting syndrome in children using valproate Brain Dev. 31:411-413, 2009
- 3. Uegaki S,Tanaka A,Mori Y,**Kodama H**,Fukusato T,Takikawa H Successful treatment with colestimide for a bout of cholestasis in a Japanese patient with benign recurrent intrahepatic cholestasis caused by ATP8B1 mutation Intem Med 47(7):599-602, 2008
- 4. **Kodama H**, Fujisawa F, Gu YH, Shiga K. Copper metabolism and copper transport disorders. Biomed Res Trace Elements 18: 249-254, 2007
- 5. Nakagawa T, Inoue Y, **Kodama H**, Yamazaki H, Kawai K, Suemizu H, Masuda R, Iwazaki M, Ymamada S, Ueyama Y, Inoue H, Nakamura M. Expression of copper-transporting P-type adenosine triphosphatase(ATP7B) correlates with cisplatin resistance in human non-small cell lung cancer xenografts. Oncol Rep. 20(2):265-70. 2008
- 6. Gu YH, Gu QJ, Xu SF, Sun HJ, Du SL, **Kodama H**. Genetic Variation in ATP7B Promoter and 5' UTR in Han Chinese Patients with Wilson's Disease. Biomed Res Trace Elements 18(3): 264-268, 2007
- 7. Kobayashi K, Katsuya Y, Abdulah R, Fujisawa C, Nagamine T, Morikawa A, Murakami M, Koda **Kodama H**. Direct Analysis of Ceruloplasmin in Human Blood Serum by HPLC/Inductively Coupled Plasma-Mass Spectrometry for the Diagnosis of Wilson Disease. Biomed Res Trace Elements 18(1): 91-95, 2007
- 8. Gu YH, **Kodama H**, Watanabe S, Kikuchi N, Ishitsuka I, Ozawa H, Fujisawa C, Shiga K. The first reported case of Menkes disease caused by an Alu insertion mutation. Brain Dev 29: 105-108, 2007
- 9. **Kodama H**, Sato E, Gu YH, Shiga K, Fujisawa C, Kozuma T. Effect of copper and diethyldithyldithiocarrbamate combination therapy on the macular mouse, an animal model of Menkes disease J Inherit Metab Dis 28:971-978, 2005
- 10. Gu YH, **Kodama H**, Du SL. Apolipoprotein E genotype analysis in Chinese Han ethnic children with Wilson's disease, with a concentration on those homozygous for R778L. Brain Dev 27(8):551-553. 2005
- 11. Kobayashi S, **Kodama H**, Inuzuka R, Mori Y, Yanagawa Y. Combination treatment with penicillamine and trientine in a patient with Wilson's disease. Pediatr Int. 47(5): 589-591, 2005
- 12. Matsuo M, Tasaki R, **Kodama H**, Hamasaki Y. Screening for Menkes disease using the urine HVA/VMA ratio. J Inherit Metab Dis 28(1): 89-93, 2005
- 13. Gu YH, **Kodama H**, Shiga K, Nakata S, Yanagawa Y, Ozawa H. A survey of Japanese patients with Menkes disease from 1990 to 2003: incidence and early signs before typical symptomatic onset, pointing the way to earlier diagnosis. J Inherit Metab Dis 28(4): 473-478, 2005
- 14. Kako K, Takehara A, Arai H, Onodera T, Takahashi Y, Hanagata H, Ogra Y, Takagi H, **Kodama H**, Suzuki KT, Munekata E, Fukamizu A. A selective requirement for copper-dependent activation of cytochrome c oxidase by Cox17p. Biochem Biophys Res Commun 324:1379-1385, 2004

- 15. Sasaki G, Ishii T, Sato S, Hoshino K, Morikawa Y, **Kodama H**, Matsuo N, Takahashi T, Hasegawa T. Multiple polypoid masses in the gastrointestinal tract in patient with Menkes disease on copper-histidinate therapy. Eur J Pediatr 163(12): 745-6, 2004
- 16. Gu YH, Shiga K, **Kodama H**, Du SL, Shimizu N, Takeshita Y, Aoki T. Genotype-phenotype analysis of mutation R778L in the ATP7B gene. Biomed Res Trace Elements 15(1): 33-36 2004
- 17. Gu YH, **Kodama H**, Du SL, Gu QJ, Sun HJ, Ushijima H. Mutation spectrum and polymorphisms in ATP7B identified on direct sequencing of all exons in Chinese Han and Hui ethnic patients with Wilson's disease. Clin Genet 64: 479-484, 2003
- 18. Fu X, Rinaldo P, Hahn SH, **Kodama H**, Packman S. Mutation analysis of copper transporter genes in patients with ethylmalonic encephalopathy, mitochondriopathies and copper deficiency phenotypes. J Inherit. Metab Dis 26: 55-66, 2003
- 19. **Kodama H**, Sato E, Yanagawa Y, Ozawa H, Kozuma T. Biochemical indicator for evaluation of connective tissue abnormalities in Menkes' disease. J Pediatr 142: 726-728, 2003
- 20. Ozawa H, **Kodama H**, Kawaguchi H, Mochizuki T, Kobayashi M, Igarashi T. Renal function in patients with Menkes disease. Eur J Pediatr 162: 51-52, 2003
- 21. **Kodama H**, Gu Y-H, Shiga K, Mori Y, Yanagawa Y, Mizunuma M, Sato E, Nakamoto N. Genotype and phenotype in patients with Menkes disease and occipital horn syndrome. J Inherit Metab Dis. 25: 166, 2002
- 22. Shiihara T, Kato M, Honma T, Kimura T, Matsunaga A, **Kodama H**, Hayasaka K. Progressive Slidinng Hiatal Hernia as a Complication of Menkes' Syndrome. J Child Neurol 17: 401-402, 2002
- 23. Takahashi Y, Kako K, Kashiwabara S, Takehara A, Inada Y, Arai H, Nakada K, **Kodama H**, Hayashi J, Baba T, Munekata E. Mammalian copper chaperone cox17p has an essential role in activation of cytochrome c oxidase and embryonic development. Molecular and Cellular Biology 22(21): 7614-7621, 2002
- 24. Gu Y, **Kodama H**, Sato E, Mochizuki D, Yanagawa Y, Takayanagi M, Sato K, Ogawa A, Ushijima H, Lee CC. Prenatal diagnosis of Menkes disease by genetic analysis and copper measurement. Brain Dev 24: 715-718, 2002
- 25. Murakami H, **Kodama H**, Nemoto N. Abnormality of vascular elastic fibers in the macular mouse and a patient with Menkes'disease:ultrastructural and immunohistochemical study. Med Electron Microsc 35: 24-30, 2002
- 26. Komatsu H, Fujisawa T, Inui A, Sogo T, Sekine I, **Kodama H**, Uemoto S, Tanaka K. Hepatic copper concentration in children undergoing living related liver transplantation due to Wilsonian fulminant hepatic failure. Clinical Transplantation 16: 227-232, 2002
- 27. Du SL, Len T, Gu YH, Ushijima H, **Kodama H**. Long-term treatment with high-dose zinc sulphate in 36 Children with Wilson's disease. Biomed Res Trace Elements 13: 85-88, 2002
- 28. **Kodyama H**, Gu YH, Mizunuma M. Drug targets in Menkes disease prospective developments. Expert Opin Ther Targets. 5(5):625-635, 2001
- 29. Ozawa H, **Kodama H**, Murata Y, Takashima S, Noma S. Transient temporal lobe changes and a novel mutation in a patient with Menkes disease. Pediatr Int. 43: 437-40, 2001
- 30. Aita K, Jin Y, Irie H, Takahashi I, Kobori K, Nakasato Y, **Kodama H**, Yanagawa Y, Yoshikawa T, Shiga J. Are there histopathologic characteristics particular to fulminant hepatic failure caused by human herpesvirus-6 infection? A case report and discussion. Hum Pathol 32: 887-889, 2001
- 31. Tsai FJ, Lee CC, Wu MC, Lin SP, Lin CY, Tsai CH, **Kodama H**, Wu JY. Mutation analysis of type II Gaucher disease in five Taiwanese children:identification of two novel mutations. Acta Paediatr Taiwan 42: 231-235, 2001
- 32. Gu YH, **Koyama H**, Murata Y, Mochizuki D, Yanagawa Y, Ushijima H, Shiba T, Lee CC. ATP7a gene mutations in 16 patients with Menkes disease and a patient with occipital horn syndrome. Am J Med Genet 99: 217-222, 2001

## **Books and chapters**

- 1. **Kodama H.** (2002) Gene defects and clinical aspects in Menkes disease and occipital horn syndrome. Massaro E ed. Handbook of copper pharmacology. Human Press. Totowa(USA). 319-338
- 2. Abe T, Araki K, Kobayashi M, Fujita Y, Shinozaki T, Kodama H, Ushijima H. (1998) Viral encephalitis: new concept and treatment. Monduzzl rdifore new developments in child neurology. Monduzzl Rditore. Bologna(Italy). 341-348
- 3. **Kodama H**, Chang LM. Ed. (1996) Genetic disorders of copper metabolism. toxicology of metals. Boca Raton. CRC Press Inc. 367-382
- 4. **Kodama H**, Nose O, Okada S, Yabuuchi H. (1983) The study of organic acids metabolism in a patient with ornithine transcarbamylase (OTC) deficiency Lowenthal A, Mori A, Marescan B eds Urea Cycle Diseases. Plenum Publishing Corporation. New York. 341-350