

CURRICULUM VITAE
(Abbreviated Version)

NAME: Chiharu Tohyama
 TITLE: Chief, *HESTIC* (Health, Environment, Science, and Technology International Consultant)
 Emeritus Professor, The University of Tokyo
 Visiting Professor, University of Tsukuba
 Visiting Professor, Beijing University School of Public Health
 Visiting Professor, China Medical University
 Visiting Professor, Chulalongkorn University

PLACE OF BIRTH: Tokyo, Japan

NATIONALITY: Japan.

EDUCATION:

<u>Institution</u>	<u>Degree</u>	<u>Year</u>	<u>Discipline</u>
University of Tokyo	B. Health Sci.,	1972	Health Sciences
University of Rochester	Ph.D.	1981	Toxicology
University of Tokyo	D. Med.Sci.,	1984	Medical Sciences

POSITIONS:

1981-1994 Researcher, Environmental Health Sciences Division, National Institute for Environmental Studies, Tsukuba
 1994-2004 Director, Environmental Health Sciences Division, National Institute for Environmental Studies, Tsukuba
 2000-2004 Adjunct Professor, Graduate Scholl of Human Integrated Sciences, University of Tsukuba
 2005 Professor, Graduate School of Medicine, The University of Tokyo

SOCIETY MEMBERSHIPS

Japanese Society of Hygiene, (President, 2012-2015)
 Society of Toxicology, USA (Associate Editor to Toxicological Sciences; 2005-2015)
 Japanese Society of Toxicology (Council member)
 Japanese Society of Environmental Endocrine Disruptors (Executive Board member)
 Japanese Society of Public Health

EDITORS (Past and Current):

Associate Editor, Toxicol. Sci.; Scientific Reports
 Editorial Board, Industrial Health
 Editorial Board, Journal of Toxicological Sciences

ADVISORY AND RESEARCH REVIEW COMMITTEES (Outside the University):

1998 WHO Temporary Advisor for consultation on dioxin risk assessment (Geneva)
2002 Temporary Advisor for the EU/WHO meeting on dioxin-like PCBs (Brussels)
2003 Temporary Advisor for the Joint Expert Committee for Food Additives Meeting (Rome)
2004 Temporary Advisor for the WHO meeting on dioxin TEFs
2003 to Present Expert Committee to the Food Safety Commission, the Premier's Office
2000 to Present Expert Committees to the Ministry of the Environment
2005 to Present JSPS Research Evaluation Committees
2015 to Present Executive Board Member, The Japanese Association of Medical Sciences

SPECIAL STUDENETS, GRADUATE STUDENTS, AND POSTDOCTORAL FELLOWS TRAINED

University of Tokyo

Special Students	3
Graduate Students	17
Postdoctoral Fellows	7
Total:	27

HONORS:

The Society Award:

The Japanese Society of Toxicology Achievement Award, 2015
The Japanese Society of Hygiene, Distinguished Achievement Award, 2010
The Japanese Society of Risk Analysis, Distinguished Achievement Award, 2008
The Japanese Society of Hygiene, Young Scientist Encouragement Award, 1988

Plenary Lecture:

The 7th International Congress of Asian Society of Toxicology (ASIATOX2015)
The 39th Annual Meeting of the Japan Society of Toxicology, Sendai, 16-19 July, 2012
Symposium of Koran Society of Toxicology Seoul National University, 13-14 May, 2010
, Annual Meeting of the Chinese Toxicology Society, Dalian, 31 July, 2010
International Symposium on the Environmental Risks of Chemicals, Tokyo, 2008.
Forum 2008, Hygienic Pharmacy and Environmental Toxicology, Kumamoto, 2008.
etc.

PUBLICATIONS (in English and Japanese)

Original papers	176
Chapters and Reviews	30
Books edited	11
Abstracts	311

ORIGINAL PAPERS

1. Kimura E, Kubo K, Matsuyoshi C, Benner S, Hosokawa M, Endo T, Ling W, Kohda M, Yokoyama K, Nakajima K, Kakeyama M, Tohyama C. Developmental origin of abnormal dendritic growth in the mouse brain induced by in utero disruption of aryl hydrocarbon receptor signaling. *Neurotoxicol Teratol*. 2015 Nov-Dec;52(Pt A):42-50. PMID: 26526904
2. Ishii K, Kubo K, Endo T, Yoshida K, Benner S, Ito Y, Aizawa H, Aramaki M, Yamanaka A, Tanaka K, Takata N, Tanaka KF, Mimura M, Tohyama C, Kakeyama M, Nakajima K. Neuronal Heterotopias Affect the Activities of Distant Brain Areas and Lead to Behavioral Deficits. *J Neurosci*. 2015 Sep 9;35(36):12432-45. PMID: 26354912
3. Benner S, Kakeyama M, Endo T, Yoshioka W, Tohyama C. Application of NeuroTrace staining in the fresh frozen brain samples to laser microdissection combined with quantitative RT-PCR analysis. *BMC Res Notes*. 2015 Jun 20;8:252. PMID: 26092293
4. Kimura E, Matsuyoshi C, Miyazaki W, Benner S, Hosokawa M, Yokoyama K, Kakeyama M, Tohyama C. Prenatal exposure to bisphenol A impacts neuronal morphology in the hippocampal CA1 region in developing and aged mice. *Arch Toxicol*. 2015 Mar 25. [Epub ahead of print] PMID: 25804199
5. Benner S, Endo T, Endo N, Kakeyama M, Tohyama C. Early deprivation induces competitive subordination in C57BL/6 male mice, *Physiol Behav* 137:42-52, 2014
6. Aida-Yasuoka K, Yoshioka W, Kawaguchi T, Ohsako S, Tohyama C. A Mouse Strain Less Responsive to Dioxin-Induced Prostaglandin E2 Synthesis is Resistant to the Onset of Neonatal Hydronephrosis, *Toxicol Sci* 141(2):465-474, 2014
7. Yoshioka W, Kawaguchi T, Fujisawa N, Aida-Yasuoka K, Shimizu T, Matsumura F, Tohyama C. Predominant role of cytosolic phospholipase A2alpha in dioxin-induced neonatal hydronephrosis in mice, *Sci Rep* 4:4042, 2014
8. Kakeyama M, Endo T, Zhang Y, Miyazaki W, Tohyama C. Disruption of paired-associate learning in rat offspring perinatally exposed to dioxins, *Arch Toxicol* 88(3):789-98, 2014
9. Sugai E, Yoshioka W, Kakeyama M, Ohsako S, Tohyama C. In utero and lactational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin modulates dysregulation of the lipid metabolism in mouse offspring fed a high-calorie diet, *J Appl Toxicol* 34(3):296-306, 2014.
6. Kurita H, Ohsako S, Hashimoto S, Yoshinaga J, Tohyama C. Prenatal zinc deficiency-dependent epigenetic alterations of mouse metallothionein-2 gene, *J Nutr Biochem* 24(1):256-66, 2013
7. Endo T, Kakeyama M, Uemura Y, Haijima A, Okuno H, Bito H, Tohyama C. Executive function deficits and social-behavioral abnormality in mice exposed to a low dose of dioxin in utero and via lactation, *PLoS One* 7(12):e50741, 2012
8. Yoshioka W, Endo N, Kurashige A, Haijima A, Endo T, Shibata T, Nishiyama R, Kakeyama M, Tohyama C. Fluorescence laser microdissection reveals a distinct pattern of gene activation in the mouse hippocampal region, *Sci Rep* 2:783, 2012
9. Yoshioka W, Aida-Yasuoka K, Fujisawa N, Kawaguchi T, Ohsako S, Hara S, Uematsu S, Akira S, Tohyama C. Critical role of microsomal prostaglandin E synthase-1 in the hydronephrosis caused by lactational exposure to dioxin in mice, *Toxicol Sci* 127(2):547-54, 2012
10. Yoshioka W, Higashiyama W, Tohyama C. Involvement of microRNAs in dioxin-induced liver

- damage in the mouse, *Toxicol Sci* 122(2):457-65, 2011
11. Tse D, Takeuchi T, Kakeyama M, Kajii Y, Okuno H, Tohyama C, Bito H, Morris RG, Schema-dependent gene activation and memory encoding in neocortex, *Science* 333(6044):891-5, 2011
 12. Tohyama C, Uchiyama I, Hoshi S, Hijiya M, Miyata H, Nagai M, Nakai S, Yauchi M, Ohkubo S, Polychlorinated dioxins, furans, and biphenyls in blood of children and adults living in a dioxin-contaminated area in Tokyo, *Environ Health Prev Med* 16(1):6-15, 2011
 13. Endo T, Maekawa F, Voikar V, Haijima A, Uemura Y, Zhang Y, Miyazaki W, Suyama S, Shimazaki K, Wolfer DP, Yada T, Tohyama C, Lipp HP, Kakeyama M, Automated test of behavioral flexibility in mice using a behavioral sequencing task in IntelliCage, *Behav Brain Res* 221(1):172-81, 2011
 14. Ohsako S, Fukuzawa N, Ishimura R, Kawakami T, Wu Q, Nagano R, Zaha H, Sone H, Yonemoto J, Tohyama C, Comparative contribution of the aryl hydrocarbon receptor gene to perinatal stage development and dioxin-induced toxicity between the urogenital complex and testis in the mouse, *Biol Reprod* 82(3):636-43, 2010
 15. Haijima A, Endo T, Zhang Y, Miyazaki W, Kakeyama M, Tohyama C, In utero and lactational exposure to low doses of chlorinated and brominated dioxins induces deficits in the fear memory of male mice, *Neurotoxicology* 31(4):385-90, 2010
 16. Dong B, Nishimura N, Vogel CF, Tohyama C, Matsumura F, TCDD-induced cyclooxygenase-2 expression is mediated by the nongenomic pathway in mouse MMDD1 macula densa cells and kidneys, *Biochem Pharmacol* 79(3):487-97, 2010
 17. Alam MS, Ohsako S, Matsuwaki T, Zhu XB, Tsunekawa N, Kanai Y, Sone H, Tohyama C, Kurohmaru M, Induction of spermatogenic cell apoptosis in prepubertal rat testes irrespective of testicular steroidogenesis: a possible estrogenic effect of di(n-butyl) phthalate, *Reproduction* 139(2):427-37, 2010
 18. Yoshioka W, Akagi T, Nishimura N, Shimizu H, Watanabe C, Tohyama C, Severe toxicity and cyclooxygenase (COX)-2 mRNA increase by lithium in the neonatal mouse kidney, *J Toxicol Sci* 34(5):519-25, 2009
 19. Nohara K, Suzuki T, Ao K, Murai H, Miyamoto Y, Inouye K, Pan X, Motohashi H, Fujii-Kuriyama Y, Yamamoto M, Tohyama C, Constitutively active aryl hydrocarbon receptor expressed in T cells increases immunization-induced IFN-gamma production in mice but does not suppress T(h)2-cytokine production or antibody production, *Int Immunol* 21(7):769-77, 2009
 20. Kurita H, Yoshioka W, Nishimura N, Kubota N, Kadowaki T, Tohyama C, Aryl hydrocarbon receptor-mediated effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on glucose-stimulated insulin secretion in mice, *J Appl Toxicol* 29(8):689-94, 2009
 21. Kawakami T, Ito T, Ohsako S, Shiizaki K, Murakami Y, Hirowatari K, Sato M, Tohyama C, Possible involvement of arylhydrocarbon receptor variants in TCDD-induced thymic atrophy and XRE-dependent transcriptional activity in Wistar Hannover GALAS rats, *J Toxicol Sci* 34(2):209-20, 2009
 22. Ao K, Suzuki T, Murai H, Matsumoto M, Nagai H, Miyamoto Y, Tohyama C, Nohara K, Comparison of immunotoxicity among tetrachloro-, pentachloro-, tetrabromo- and pentabromo-dibenzo-p-dioxins in mice, *Toxicology* 256(1-2):25-31, 2009
 23. Wu Q, Suzuki JS, Zaha H, Lin TM, Peterson RE, Tohyama C, Ohsako S, Differences in gene expression and benzo[a]pyrene-induced DNA adduct formation in the liver of three strains of female mice with identical AhRb2 genotype treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin and/or benzo[a]pyrene, *J Appl Toxicol* 28(6):724-33, 2008
 24. Shibuya K, Suzuki JS, Kito H, Naganuma A, Tohyama C, Satoh M, Protective role of metallothionein in bone marrow injury caused by X-irradiation, *J Toxicol Sci* 33(4):479-84, 2008
 25. Shibuya K, Nishimura N, Suzuki JS, Tohyama C, Naganuma A, Satoh M, Role of metallothionein

- as a protective factor against radiation carcinogenesis, *J Toxicol Sci* 33(5):651-5, 2008
26. Nohara K, Ao K, Miyamoto Y, Suzuki T, Imaizumi S, Tateishi Y, Omura S, Tohyama C, Kobayashi T, Arsenite-induced thymus atrophy is mediated by cell cycle arrest: a characteristic downregulation of E2F-related genes revealed by a microarray approach, *Toxicol Sci* 101(2):226-38, 2008
 27. Nishimura N, Matsumura F, Vogel CF, Nishimura H, Yonemoto J, Yoshioka W, Tohyama C, Critical role of cyclooxygenase-2 activation in pathogenesis of hydronephrosis caused by lactational exposure of mice to dioxin, *Toxicol Appl Pharmacol* 231(3):374-83, 2008
 28. Miyazaki W, Iwasaki T, Takeshita A, Tohyama C, Koibuchi N, Identification of the functional domain of thyroid hormone receptor responsible for polychlorinated biphenyl-mediated suppression of its action in vitro, *Environ Health Perspect* 116(9):1231-6, 2008
 29. Kakeyama M, Sone H, Tohyama C, Perinatal exposure of female rats to 2,3,7,8-tetrachlorodibenzo-p-dioxin induces central precocious puberty in the offspring, *J Endocrinol* 197(2):351-8, 2008
 30. Ito T, Inouye K, Nohara K, Tohyama C, Fujimaki H, TCDD exposure exacerbates atopic dermatitis-related inflammation in NC/Nga mice, *Toxicol Lett* 177(1):31-7, 2008
 31. Hozumi I, Suzuki JS, Kanazawa H, Hara A, Saio M, Inuzuka T, Miyairi S, Naganuma A, Tohyama C, Metallothionein-3 is expressed in the brain and various peripheral organs of the rat, *Neurosci Lett* 438(1):54-8, 2008
 32. Hojo R, Kakeyama M, Kurokawa Y, Aoki Y, Yonemoto J, Tohyama C, Learning behavior in rat offspring after in utero and lactational exposure to either TCDD or PCB126, *Environ Health Prev Med* 13(3):169-80, 2008
 33. Sakata Y, Yoshioka W, Tohyama C, Ohsako S, Internal genomic sequence of human CYP1A1 gene is involved in superinduction of dioxin-induced CYP1A1 transcription by cycloheximide, *Biochem Biophys Res Commun* 355(3):687-92, 2007
 34. Kobayashi K, Kuroda J, Shibata N, Hasegawa T, Seko Y, Satoh M, Tohyama C, Takano H, Imura N, Sakabe K, Fujishiro H, Himeno S, Induction of metallothionein by manganese is completely dependent on interleukin-6 production, *J Pharmacol Exp Ther* 320(2):721-7, 2007
 35. Nohara K, Ao K, Miyamoto Y, Ito T, Suzuki T, Toyoshiba H, Tohyama C, Comparison of the 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-induced CYP1A1 gene expression profile in lymphocytes from mice, rats, and humans: most potent induction in humans, *Toxicology* 225(2-3):204-13, 2006
 36. Nishimura N, Yonemoto J, Nishimura H, Tohyama C, Localization of cytochrome P450 1A1 in a specific region of hydronephrotic kidney of rat neonates lactationally exposed to 2,3,7,8-tetrachlorodibenzo-p-dioxin, *Toxicology* 227(1-2):117-26, 2006
 37. Mitsui T, Sugiyama N, Maeda S, Tohyama C, Arita J, Perinatal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin suppresses contextual fear conditioning-accompanied activation of cyclic AMP response element-binding protein in the hippocampal CA1 region of male rats, *Neurosci Lett* 398(3):206-10, 2006
 38. Kawakami T, Ishimura R, Nohara K, Takeda K, Tohyama C, Ohsako S, Differential susceptibilities of Holtzman and Sprague-Dawley rats to fetal death and placental dysfunction induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) despite the identical primary structure of the aryl hydrocarbon receptor, *Toxicol Appl Pharmacol* 212(3):224-36, 2006
 39. Ito T, Nagai H, Lin TM, Peterson RE, Tohyama C, Kobayashi T, Nohara K, Organic Chemicals Adsorbed onto Diesel Exhaust Particles Directly Alter the Differentiation of Fetal Thymocytes Through Arylhydrocarbon Receptor but Not Oxidative Stress Responses, *J Immunotoxicol* 3(1):21-30, 2006
 40. Ishimura R, Kawakami T, Ohsako S, Nohara K, Tohyama C, Suppressive effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on vascular remodeling that takes place in the normal labyrinth zone of rat placenta during late gestation, *Toxicol Sci* 91(1):265-74, 2006

41. Yonemoto J, Ichiki T, Takei T, Tohyama C, Maternal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin and the body burden in offspring of long-evans rats, *Environ Health Prev Med* 10(1):21-32, 2005
42. Shimada A, Nagayama Y, Morita T, Yoshida M, Suzuki JS, Satoh M, Tohyama C, Localization and role of metallothioneins in the olfactory pathway after exposure to mercury vapor, *Exp Toxicol Pathol* 57(2):117-25, 2005
43. Shiizaki K, Ohsako S, Koyama T, Nagata R, Yonemoto J, Tohyama C, Lack of CYP1A1 expression is involved in unresponsiveness of the human hepatoma cell line SK-HEP-1 to dioxin, *Toxicol Lett* 160(1):22-33, 2005
44. Nohara K, Pan X, Tsukumo S, Hida A, Ito T, Nagai H, Inouye K, Motohashi H, Yamamoto M, Fujii-Kuriyama Y, Tohyama C, Constitutively active aryl hydrocarbon receptor expressed specifically in T-lineage cells causes thymus involution and suppresses the immunization-induced increase in splenocytes, *J Immunol* 174(5):2770-7, 2005
45. Nishimura N, Yonemoto J, Nishimura H, Ikushiro S, Tohyama C, Disruption of thyroid hormone homeostasis at weaning of Holtzman rats by lactational but not in utero exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin, *Toxicol Sci* 85(1):607-14, 2005
46. Nishimura N, Yonemoto J, Miyabara Y, Fujii-Kuriyama Y, Tohyama C, Altered thyroxin and retinoid metabolic response to 2,3,7,8-tetrachlorodibenzo-p-dioxin in aryl hydrocarbon receptor-null mice, *Arch Toxicol* 79(5):260-7, 2005
47. Nagai H, Takei T, Tohyama C, Kubo M, Abe R, Nohara K, Search for the target genes involved in the suppression of antibody production by TCDD in C57BL/6 mice, *Int Immunopharmacol* 5(2):331-43, 2005
48. Miyabara Y, Nishimura N, Tohyama C, Determination of dioxins in human hair: Estimation of external and internal exposure to dioxins, *Environ Health Prev Med* 10(2):86-93, 2005
49. Kobayashi K, Shida R, Hasegawa T, Satoh M, Seko Y, Tohyama C, Kuroda J, Shibata N, Imura N, Himeno S, Induction of hepatic metallothionein by trivalent cerium: role of interleukin 6, *Biol Pharm Bull* 28(10):1859-63, 2005
50. Inouye K, Pan X, Imai N, Ito T, Takei T, Tohyama C, Nohara K, T cell-derived IL-5 production is a sensitive target of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD), *Chemosphere* 60(7):907-13, 2005
51. Ikeda M, Mitsui T, Setani K, Tamura M, Kakeyama M, Sone H, Tohyama C, Tomita T, In utero and lactational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin in rats disrupts brain sexual differentiation, *Toxicol Appl Pharmacol* 205(1):98-105, 2005
52. Yoshida M, Watanabe C, Satoh M, Yasutake A, Sawada M, Ohtsuka Y, Akama Y, Tohyama C, Susceptibility of metallothionein-null mice to the behavioral alterations caused by exposure to mercury vapor at human-relevant concentration, *Toxicol Sci* 80(1):69-73, 2004
53. Yasutake A, Sawada M, Shimada A, Satoh M, Tohyama C, Mercury accumulation and its distribution to metallothionein in mouse brain after sub-chronic pulse exposure to mercury vapor, *Arch Toxicol* 78(9):489-95, 2004
54. Wu Q, Ohsako S, Ishimura R, Suzuki JS, Tohyama C, Exposure of mouse preimplantation embryos to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) alters the methylation status of imprinted genes H19 and Igf2, *Biol Reprod* 70(6):1790-7, 2004
55. Watanabe H, Suzuki A, Goto M, Ohsako S, Tohyama C, Handa H, Iguchi T, Comparative uterine gene expression analysis after dioxin and estradiol administration, *J Mol Endocrinol* 33(3):763-71, 2004
56. Shimada A, Yamamoto E, Morita T, Yoshida M, Suzuki JS, Satoh M, Tohyama C, Ultrastructural demonstration of mercury granules in the placenta of metallothionein-null pregnant mice after exposure to mercury vapor, *Toxicol Pathol* 32(5):519-26, 2004
57. Pan X, Inouye K, Ito T, Nagai H, Takeuchi Y, Miyabara Y, Tohyama C, Nohara K, Evaluation of relative potencies of PCB126 and PCB169 for the immunotoxicities in ovalbumin

- (OVA)-immunized mice, *Toxicology* 204(1):51-60, 2004
58. Mizutani T, Yoshino M, Satake T, Nakagawa M, Ishimura R, Tohyama C, Kokame K, Kangawa K, Miyamoto K, Identification of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)-inducible and -suppressive genes in the rat placenta: induction of interferon-regulated genes with possible inhibitory roles for angiogenesis in the placenta, *Endocr J* 51(6):569-77, 2004
 59. Kusumegi T, Tanaka J, Kawano M, Yonemoto J, Tohyama C, Sone H, BMP7/ActRIIB regulates estrogen-dependent apoptosis: new biomarkers for environmental estrogens, *J Biochem Mol Toxicol* 18(1):1-11, 2004
 60. Jia G, Sone H, Nishimura N, Satoh M, Tohyama C, Metallothionein (I/II) suppresses genotoxicity caused by dimethylarsinic acid, *Int J Oncol* 25(2):325-33, 2004
 61. Ito T, Tsukumo S, Suzuki N, Motohashi H, Yamamoto M, Fujii-Kuriyama Y, Mimura J, Lin TM, Peterson RE, Tohyama C, Nohara K, A constitutively active arylhydrocarbon receptor induces growth inhibition of jurkat T cells through changes in the expression of genes related to apoptosis and cell cycle arrest, *J Biol Chem* 279(24):25204-10, 2004
 62. Inoue K, Takano H, Yanagisawa R, Sakurai M, Shimada A, Morita T, Sato M, Yoshino S, Yoshikawa T, Tohyama C, Protective role of interleukin-6 in coagulatory and hemostatic disturbance induced by lipopolysaccharide in mice, *Thromb Haemost* 91(6):1194-201, 2004
 63. Fukuzawa NH, Ohsako S, Wu Q, Sakaue M, Fujii-Kuriyama Y, Baba T, Tohyama C, Testicular cytochrome P450scc and LHR as possible targets of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) in the mouse, *Mol Cell Endocrinol* 221(1-2):87-96, 2004
 64. Suzuki JS, Nishimura N, Zhang B, Nakatsuru Y, Kobayashi S, Satoh M, Tohyama C, Metallothionein deficiency enhances skin carcinogenesis induced by 7,12-dimethylbenz[a]anthracene and 12-O-tetradecanoylphorbol-13-acetate in metallothionein-null mice, *Carcinogenesis* 24(6):1123-32, 2003
 65. Ohsako S, Kubota K, Kurosawa S, Takeda K, Qing W, Ishimura R, Tohyama C, Alterations of gene expression in adult male rat testis and pituitary shortly after subacute administration of the antiandrogen flutamide, *J Reprod Dev* 49(4):275-90, 2003
 66. Nishimura N, Yonemoto J, Miyabara Y, Sato M, Tohyama C, Rat thyroid hyperplasia induced by gestational and lactational exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin, *Endocrinology* 144(5):2075-83, 2003
 67. Murata M, Nishimura N, Zhang B, Satoh M, Tohyama C, Interleukin-6 protects skin lesion caused by 7,12-dimethylbenz[a]anthracene, *J Vet Med Sci* 65(4):511-3, 2003
 68. Moriguchi T, Motohashi H, Hosoya T, Nakajima O, Takahashi S, Ohsako S, Aoki Y, Nishimura N, Tohyama C, Fujii-Kuriyama Y, Yamamoto M, Distinct response to dioxin in an arylhydrocarbon receptor (AHR)-humanized mouse, *Proc Natl Acad Sci U S A* 100(10):5652-7, 2003
 69. Kubota K, Ohsako S, Kurosawa S, Takeda K, Qing W, Sakaue M, Kawakami T, Ishimura R, Tohyama C, Effects of vinclozolin administration on sperm production and testosterone biosynthetic pathway in adult male rat, *J Reprod Dev* 49(5):403-12, 2003
 70. Kakeyama M, Sone H, Miyabara Y, Tohyama C, Perinatal exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin alters activity-dependent expression of BDNF mRNA in the neocortex and male rat sexual behavior in adulthood, *Neurotoxicology* 24(2):207-17, 2003
 71. Ishizuka M, Yonemoto J, Zaha H, Tohyama C, Sone H, Perinatal exposure to low doses of 2,3,7,8-tetrachlorodibenzo-p-dioxin alters sex-dependent expression of hepatic CYP2C11, *J Biochem Mol Toxicol* 17(5):278-85, 2003
 72. Inouye K, Ito T, Fujimaki H, Takahashi Y, Takemori T, Pan X, Tohyama C, Nohara K, Suppressive effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on the high-affinity antibody response in C57BL/6 mice, *Toxicol Sci* 74(2):315-24, 2003
 73. Fukuzawa NH, Ohsako S, Nagano R, Sakaue M, Baba T, Aoki Y, Tohyama C, Effects of 3,3',4,4',5-pentachlorobiphenyl, a coplanar polychlorinated biphenyl congener, on cultured neonatal

- mouse testis, *Toxicol In Vitro* 17(3):259-69, 2003
74. Doi H, Baba T, Tohyama C, Nohara K, Functional activation of arylhydrocarbon receptor (AhR) in primary T cells by 2,3,7,8-tetrachlorodibenzo-p-dioxin, *Chemosphere* 52(4):655-62, 2003
 75. Arisawa K, Matsumura T, Tohyama C, Saito H, Satoh H, Nagai M, Morita M, Suzuki T, Fish intake, plasma omega-3 polyunsaturated fatty acids, and polychlorinated dibenzo-p-dioxins/polychlorinated dibenzo-furans and co-planar polychlorinated biphenyls in the blood of the Japanese population, *Int Arch Occup Environ Health* 76(3):205-15, 2003
 76. Yoshida M, Satoh M, Shimada A, Yamamoto E, Yasutake A, Tohyama C, Maternal-to-fetus transfer of mercury in metallothionein-null pregnant mice after exposure to mercury vapor, *Toxicology* 175(1-3):215-22, 2002
 77. Wu Q, Ohsako S, Baba T, Miyamoto K, Tohyama C, Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on preimplantation mouse embryos, *Toxicology* 174(2):119-29, 2002
 78. Tsukumo S, Iwata M, Tohyama C, Nohara K, Skewed differentiation of thymocytes toward CD8 T cells by 2,3,7,8-tetrachlorodibenzo-p-dioxin requires activation of the extracellular signal-related kinase pathway, *Arch Toxicol* 76(5-6):335-43, 2002
 79. Satoh M, Koyama H, Kaji T, Kito H, Tohyama C, Perspectives on cadmium toxicity research, *Tohoku J Exp Med* 196(1):23-32, 2002
 80. Sakaue M, Ishimura R, Kurosawa S, Fukuzawa NH, Kurohmaru M, Hayashi Y, Tohyama C, Ohsako S, Administration of estradiol-3-benzoate down-regulates the expression of testicular steroidogenic enzyme genes for testosterone production in the adult rat, *J Vet Med Sci* 64(2):107-13, 2002
 81. Ohsako S, Miyabara Y, Sakaue M, Ishimura R, Kakeyama M, Izumi H, Yonemoto J, Tohyama C, Developmental stage-specific effects of perinatal 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure on reproductive organs of male rat offspring, *Toxicol Sci* 66(2):283-92, 2002
 82. Nohara K, Izumi H, Tamura S, Nagata R, Tohyama C, Effect of low-dose 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on influenza A virus-induced mortality in mice, *Toxicology* 170(1-2):131-8, 2002
 83. Nohara K, Fujimaki H, Tsukumo S, Inouye K, Sone H, Tohyama C, Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) on T cell-derived cytokine production in ovalbumin (OVA)-immunized C57Bl/6 mice, *Toxicology* 172(1):49-58, 2002
 84. Nishimura N, Miyabara Y, Sato M, Yonemoto J, Tohyama C, Immunohistochemical localization of thyroid stimulating hormone induced by a low oral dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin in female Sprague-Dawley rats, *Toxicology* 171(2-3):73-82, 2002
 85. Kurachi M, Hashimoto S, Obata A, Nagai S, Nagahata T, Inadera H, Sone H, Tohyama C, Kaneko S, Kobayashi K, Matsushima K, Identification of 2,3,7,8-tetrachlorodibenzo-p-dioxin-responsive genes in mouse liver by serial analysis of gene expression, *Biochem Biophys Res Commun* 292(2):368-77, 2002
 86. Jia G, Tohyama C, Sone H, DNA damage triggers imbalance of proliferation and apoptosis during development of preneoplastic foci in the liver of Long-Evans Cinnamon rats, *Int J Oncol* 21(4):755-61, 2002
 87. Ito T, Inouye K, Fujimaki H, Tohyama C, Nohara K, Mechanism of TCDD-induced suppression of antibody production: effect on T cell-derived cytokine production in the primary immune reaction of mice, *Toxicol Sci* 70(1):46-54, 2002
 88. Ishimura R, Ohsako S, Miyabara Y, Sakaue M, Kawakami T, Aoki Y, Yonemoto J, Tohyama C, Increased glycogen content and glucose transporter 3 mRNA level in the placenta of Holtzman rats after exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin, *Toxicol Appl Pharmacol* 178(3):161-71, 2002
 89. Ishimura R, Ohsako S, Kawakami T, Sakaue M, Aoki Y, Tohyama C, Altered protein profile and possible hypoxia in the placenta of 2,3,7,8-tetrachlorodibenzo-p-dioxin-exposed rats, *Toxicol Appl*

- Pharmacol 185(3):197-206, 2002
90. Ikeda M, Inukai N, Mitsui T, Sone H, Yonemoto J, Tohyama C, Tomita T, Changes in fetal brain aromatase activity following in utero 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure in rats, *Environ Toxicol Pharmacol* 11(1):1-7, 2002
 91. Fujimaki H, Nohara K, Kobayashi T, Suzuki K, Eguchi-Kasai K, Tsukumo S, Kijima M, Tohyama C, Effect of a single oral dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin on immune function in male NC/Nga mice, *Toxicol Sci* 66(1):117-24, 2002
 92. Buchanan DL, Ohsako S, Tohyama C, Cooke PS, Iguchi T, Dioxin inhibition of estrogen-induced mouse uterine epithelial mitogenesis involves changes in cyclin and transforming growth factor-beta expression, *Toxicol Sci* 66(1):62-8, 2002
 93. Takanaga H, Kunimoto M, Adachi T, Tohyama C, Aoki Y, Inhibitory effect of 2,3,7,8-tetrachlorodibenzo-p-dioxin on cAMP-induced differentiation of rat C6 glial cell line, *J Neurosci Res* 64(4):402-9, 2001
 94. Sakaue M, Ohsako S, Ishimura R, Kurosawa S, Kurohmaru M, Hayashi Y, Aoki Y, Yonemoto J, Tohyama C, Bisphenol-A Affects Spermatogenesis in the Adult Rat Even at a Low Dose, *Journal of Occupational Health* 43(4):185-90, 2001
 95. Ohsako S, Miyabara Y, Nishimura N, Kurosawa S, Sakaue M, Ishimura R, Sato M, Takeda K, Aoki Y, Sone H, Tohyama C, Yonemoto J, Maternal exposure to a low dose of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) suppressed the development of reproductive organs of male rats: dose-dependent increase of mRNA levels of 5alpha-reductase type 2 in contrast to decrease of androgen receptor in the pubertal ventral prostate, *Toxicol Sci* 60(1):132-43, 2001
 96. Nishimura N, Miyabara Y, Suzuki JS, Sato M, Aoki Y, Satoh M, Yonemoto J, Tohyama C, Induction of metallothionein in the livers of female Sprague-Dawley rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin, *Life Sci* 69(11):1291-303, 2001
 97. Nagano S, Satoh M, Sumi H, Fujimura H, Tohyama C, Yanagihara T, Sakoda S, Reduction of metallothioneins promotes the disease expression of familial amyotrophic lateral sclerosis mice in a dose-dependent manner, *Eur J Neurosci* 13(7):1363-70, 2001
 98. Kakeyama M, Sone H, Tohyama C, Changes in expression of NMDA receptor subunit mRNA by perinatal exposure to dioxin, *Neuroreport* 12(18):4009-12, 2001
 99. Fukada K, Nagano S, Satoh M, Tohyama C, Nakanishi T, Shimizu A, Yanagihara T, Sakoda S, Stabilization of mutant Cu/Zn superoxide dismutase (SOD1) protein by coexpressed wild SOD1 protein accelerates the disease progression in familial amyotrophic lateral sclerosis mice, *Eur J Neurosci* 14(12):2032-6, 2001
 100. Takano H, Satoh M, Shimada A, Sagai M, Yoshikawa T, Tohyama C, Cytoprotection by metallothionein against gastroduodenal mucosal injury caused by ethanol in mice, *Lab Invest* 80(3):371-7, 2000
 101. Satoh M, Shimada A, Zhang B, Tohyama C, Renal toxicity caused by cisplatin in glutathione-depleted metallothionein-null mice, *Biochem Pharmacol* 60(11):1729-34, 2000
 102. Sarkar S, Jana NR, Yonemoto J, Tohyama C, Sone H, Estrogen enhances induction of cytochrome P-4501A1 by 2,3,7, 8-tetrachlorodibenzo-p-dioxin in liver of female Long-Evans rats, *Int J Oncol* 16(1):141-7, 2000
 103. Nohara K, Ushio H, Tsukumo S, Kobayashi T, Kijima M, Tohyama C, Fujimaki H, Alterations of thymocyte development, thymic emigrants and peripheral T cell population in rats exposed to 2,3,7, 8-tetrachlorodibenzo-p-dioxin, *Toxicology* 145(2-3):227-35, 2000
 104. Nohara K, Fujimaki H, Tsukumo S, Ushio H, Miyabara Y, Kijima M, Tohyama C, Yonemoto J, The effects of perinatal exposure to low doses of 2,3,7,8-tetrachlorodibenzo-p-dioxin on immune organs in rats, *Toxicology* 154(1-3):123-33, 2000
 105. Nishimura N, Reeve VE, Nishimura H, Satoh M, Tohyama C, Cutaneous metallothionein induction by ultraviolet B irradiation in interleukin-6 null mice, *J Invest Dermatol* 114(2):343-8, 2000

106. Molotkov A, Satoh M, Tohyama C, Induction of hepatic metallothioneins in tumor-bearing IL-6-null mice, *Oncol Res* 12(4):169-72, 2000
107. Molotkov A, Nishimura N, Satoh M, Tohyama C, Role of IL-6 in the induction of hepatic metallothionein in mice after partial hepatectomy, *Life Sci* 66(11):963-70, 2000
108. Jana NR, Sarkar S, Ishizuka M, Yonemoto J, Tohyama C, Sone H, Comparative effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin on MCF-7, RL95-2, and LNCaP cells: role of target steroid hormones in cellular responsiveness to CYP1A1 induction, *Mol Cell Biol Res Commun* 4(3):174-80, 2000
109. Yoshida M, Satoh M, Yasutake A, Shimada A, Sumi Y, Tohyama C, Distribution and retention of mercury in metallothionein-null mice after exposure to mercury vapor, *Toxicology* 139(1-2):129-36, 1999
110. Yoshida M, Satoh M, Shimada A, Yasutake A, Sumi Y, Tohyama C, Pulmonary toxicity caused by acute exposure to mercury vapor is enhanced in metallothionein-null mice, *Life Sci* 64(20):1861-7, 1999
111. Nishimura N, Tohyama C, Satoh M, Nishimura H, Reeve VE, Defective immune response and severe skin damage following UVB irradiation in interleukin-6-deficient mice, *Immunology* 97(1):77-83, 1999
112. Jana NR, Sarkar S, Ishizuka M, Yonemoto J, Tohyama C, Sone H, Cross-talk between 2,3,7,8-tetrachlorodibenzo-p-dioxin and testosterone signal transduction pathways in LNCaP prostate cancer cells, *Biochem Biophys Res Commun* 256(3):462-8, 1999a
113. Jana NR, Sarkar S, Ishizuka M, Yonemoto J, Tohyama C, Sone H, Role of estradiol receptor-alpha in differential expression of 2,3,7, 8-tetrachlorodibenzo-p-dioxin-inducible genes in the RL95-2 and KLE human endometrial cancer cell lines, *Arch Biochem Biophys* 368(1):31-9, 1999b
114. Ishido M, Tohyama C, Suzuki T, Cadmium-bound metallothionein induces apoptosis in rat kidneys, but not in cultured kidney LLC-PK1 cells, *Life Sci* 64(9):797-804, 1999
115. Cai L, Satoh M, Tohyama C, Cherian MG, Metallothionein in radiation exposure: its induction and protective role, *Toxicology* 132(2-3):85-98, 1999
116. Zhang B, Satoh M, Nishimura N, Suzuki JS, Sone H, Aoki Y, Tohyama C, Metallothionein deficiency promotes mouse skin carcinogenesis induced by 7,12-dimethylbenz[a]anthracene, *Cancer Res* 58(18):4044-6, 1998
117. Tsutsumi O, Uechi H, Sone H, Yonemoto J, Takai Y, Momoeda M, Tohyama C, Hashimoto S, Morita M, Taketani Y, Presence of dioxins in human follicular fluid: their possible stage-specific action on the development of preimplantation mouse embryos, *Biochem Biophys Res Commun* 250(2):498-501, 1998
118. Suzuki JS, Kodama N, Molotkov A, Aoki E, Tohyama C, Isolation and identification of metallothionein isoforms (MT-1 and MT-2) in the rat testis, *Biochem J* 334 (Pt 3):695-701, 1998
119. Molotkov A, Satoh M, Tohyama C, Tumor growth and food intake in interleukin-6 gene knock-out mice, *Cancer Lett* 132(1-2):187-92, 1998
120. Jana NR, Sarkar S, Yonemoto J, Tohyama C, Sone H, Strain differences in cytochrome P4501A1 gene expression caused by 2,3,7,8-tetrachlorodibenzo-p-dioxin in the rat liver: role of the aryl hydrocarbon receptor and its nuclear translocator, *Biochem Biophys Res Commun* 248(3):554-8, 1998
121. Ishido M, Tohyama C, Suzuki T, c-myc is not involved in cadmium-elicited apoptotic pathway in porcine kidney LLC-PK1 cells, *Life Sci* 63(14):1195-204, 1998
122. Ishido M, Homma-Takeda S, Tohyama C, Suzuki T, Apoptosis in rat renal proximal tubular cells induced by cadmium, *J Toxicol Environ Health A* 55(1):1-12, 1998
123. Satoh M, Nishimura N, Kanayama Y, Naganuma A, Suzuki T, Tohyama C, Enhanced renal toxicity by inorganic mercury in metallothionein-null mice, *J Pharmacol Exp Ther* 283(3):1529-33, 1997
124. Satoh M, Aoki Y, Tohyama C, Protective role of metallothionein in renal toxicity of cisplatin,

- Cancer Chemother Pharmacol 40(4):358-62, 1997
125. Sato H, Suzuki JS, Tanaka M, Ogiso M, Tohyama C, Kobayashi S, Gene expression in skin tumors induced in hairless mice by chronic exposure to ultraviolet B irradiation, *Photochem Photobiol* 65(5):908-14, 1997
 126. Homma-Takeda S, Ishido M, Tohyama C, Cadmium-Induced Apoptosis in the Proximal Tubules of Rat Kidney, *Journal of Occupational Health* 39(3):242-243, 1997
 127. Apostolova MD, Choo KH, Michalska AE, Tohyama C, Analysis of the possible protective role of metallothionein in streptozotocin-induced diabetes using metallothionein-null mice, *J Trace Elem Med Biol* 11(1):1-7, 1997
 128. Tohyama C, Suzuki JS, Homma S, Karasawa M, Kuroki T, Nishimura H, Nishimura N, Testosterone-dependent induction of metallothionein in genital organs of male rats, *Biochem J* 317 (Pt 1):97-102, 1996
 129. Tohyama C, Satoh M, Kodama N, Nishimura H, Choo A, Michalska A, Kanayama Y, Naganuma A, Reduced retention of cadmium in the liver of metallothionein-null mice, *Environ Toxicol Pharmacol* 1(3):213-6, 1996
 130. Sato M, Apostolova MD, Hamaya M, Yamaki J, Choo KH, Michalska AE, Kodama N, Tohyama C, Susceptibility of metallothionein-null mice to paraquat, *Environ Toxicol Pharmacol* 1(4):221-5, 1996
 131. Nishimura N, Cam GR, Nishimura H, Tohyama C, Saitoh Y, Adelson DL, Evidence for developmentally regulated transcriptional, translational and post-translational control of metallothionein gene expression in hair follicles, *Reprod Fertil Dev* 8(7):1089-96, 1996
 132. Kobayashi S, Takehana M, Tohyama C, Glutathione isopropyl ester reduces UVB-induced skin damage in hairless mice, *Photochem Photobiol* 63(1):106-10, 1996
 133. Zhang B, Suzuki JS, Nishimura N, Tohyama C, Difference in cadmium cytotoxicity in two kidney cell lines (LLC-PK(1) and MDCK) with special reference to metallothionein, *Toxicol In Vitro* 9(5):765-72, 1995
 134. Kawada T, Tohyama C, Suzuki S, Effects of cadmium and lead exposure on urinary N-acetyl-beta-D-glucosaminidase, beta 2-microglobulin and metallothionein of workers, *Asia Pac J Public Health* 8(2):91-4, 1995
 135. Ishido M, Homma ST, Leung PS, Tohyama C, Cadmium-induced DNA fragmentation is inhibitable by zinc in porcine kidney LLC-PK1 cells, *Life Sci* 56(17):PL351-6, 1995
 136. Abe T, Ohtsuka R, Hongo T, Suzuki T, Tohyama C, Nakano A, Akagi H, Akimichi T, High hair and urinary mercury levels of fish eaters in the nonpolluted environment of Papua New Guinea, *Arch Environ Health* 50(5):367-73, 1995
 137. Tohyama C, Nishimura N, Suzuki JS, Karasawa M, Nishimura H, Metallothionein mRNA in the testis and prostate of the rat detected by digoxigenin-labeled riboprobe, *Histochemistry* 101(5):341-6, 1994
 138. Kobayashi S, Hirota Y, Sayato-Suzuki J, Takehana M, Nishimura H, Nishimura N, Tohyama C, Possible role of metallothionein in the cellular defense mechanism against UVB irradiation in neonatal human skin fibroblasts, *Photochem Photobiol* 59(6):650-6, 1994
 139. Hongo T, Ohtsuka R, Inaoka T, Kawabe T, Akimichi T, Kuchikura Y, Suda K, Tohyama C, Suzuki T, Health status comparison by urinalysis (dipstick test) among four populations in Papua New Guinea, *Asia Pac J Public Health* 7(3):165-72, 1994
 140. Tohyama C, Suzuki JS, Hemelraad J, Nishimura N, Nishimura H, Induction of metallothionein and its localization in the nucleus of rat hepatocytes after partial hepatectomy, *Hepatology* 18(5):1193-201, 1993
 141. Tohyama C, Hirano S, Suzuki KT, Disposition and excretion of 2-chlorodibenzofuran in the rat, *Arch Environ Contam Toxicol* 22(2):176-82, 1992
 142. Nishimura N, Nishimura H, Ghaffar A, Tohyama C, Localization of metallothionein in the brain of

- rat and mouse, *J Histochem Cytochem* 40(2):309-15, 1992
143. Koyama H, Satoh H, Suzuki S, Tohyama C, Increased urinary cadmium excretion and its relationship to urinary N-acetyl-beta-D-glucosaminidase activity in smokers, *Arch Toxicol* 66(8):598-601, 1992
 144. Nishimura H, Nishimura N, Kobayashi S, Tohyama C, Immunohistochemical localization of metallothionein in the eye of rats, *Histochemistry* 95(6):535-9, 1991
 145. Karasawa M, Nishimura N, Nishimura H, Tohyama C, Hashiba H, Kuroki T, Localization of metallothionein in hair follicles of normal skin and the basal cell layer of hyperplastic epidermis: possible association with cell proliferation, *J Invest Dermatol* 97(1):97-100, 1991
 146. Hirano S, Tohyama C, Mitsumori F, Ito H, Suzuki KT, Identification of metabolites of 2-chlorodibenzofuran in the rat, *Arch Environ Contam Toxicol* 20(1):67-72, 1991
 147. Aoki Y, Tohyama C, Suzuki KT, A western blotting procedure for detection of metallothionein, *J Biochem Biophys Methods* 23(3):207-16, 1991
 148. Nishimura H, Nishimura N, Tohyama C, Localization of metallothionein in the genital organs of the male rat, *J Histochem Cytochem* 38(7):927-33, 1990
 149. Kawada T, Tohyama C, Suzuki S, Significance of the excretion of urinary indicator proteins for a low level of occupational exposure to cadmium, *Int Arch Occup Environ Health* 62(1):95-100, 1990
 150. Chiba M, Kikuchi M, Tohyama C, Nishikawa M, Concentrations of essential elements after repeated administrations of tin and selenium, *Biol Trace Elem Res* 25(2):137-47, 1990
 151. Nishimura N, Nishimura H, Tohyama C, Localization of metallothionein in female reproductive organs of rat and guinea pig, *J Histochem Cytochem* 37(11):1601-7, 1989a
 152. Nishimura H, Nishimura N, Tohyama C, Immunohistochemical localization of metallothionein in developing rat tissues, *J Histochem Cytochem* 37(5):715-22, 1989b
 153. Hazelhoff Roelfzema W, Tohyama C, Nishimura H, Nishimura N, Morselt AF, Quantitative immunohistochemistry of metallothionein in rat placenta, *Histochemistry* 90(5):365-9, 1989
 154. Tohyama C, Mitane Y, Kobayashi E, Sugihira N, Nakano A, Saito H, The relationships of urinary metallothionein with other indicators of renal dysfunction in people living in a cadmium-polluted area in Japan, *J Appl Toxicol* 8(1):15-21, 1988
 155. Iwai N, Watanabe C, Suzuki T, Suzuki KT, Tohyama C, Metallothionein induction by sodium selenite at two different ambient temperatures in mice, *Arch Toxicol* 62(6):447-51, 1988
 156. Tohyama C, Sugihira N, Saito H, Critical concentration of cadmium for renal toxicity in rats, *J Toxicol Environ Health* 22(3):255-9, 1987
 157. Shaikh ZA, Tohyama C, Nolan CV, Occupational exposure to cadmium: effect on metallothionein and other biological indices of exposure and renal function, *Arch Toxicol* 59(5):360-4, 1987
 158. Karasawa M, Hosoi J, Hashiba H, Nose K, Tohyama C, Abe E, Suda T, Kuroki T, Regulation of metallothionein gene expression by 1 alpha,25-dihydroxyvitamin D₃ in cultured cells and in mice, *Proc Natl Acad Sci U S A* 84(24):8810-3, 1987
 159. Tohyama C, Kobayashi E, Saito H, Sugihara N, Nakano A, Mitane Y, Urinary alpha 1-microglobulin as an indicator protein of renal tubular dysfunction caused by environmental cadmium exposure, *J Appl Toxicol* 6(3):171-8, 1986
 160. Tohyama C, Himeno S, Watanabe C, Suzuki T, Morita M, The relationship of the increased level of metallothionein with heavy metal levels in the tissue of the harbor seal (*Phoca vitulina*), *Ecotoxicol Environ Saf* 12(1):85-94, 1986
 161. Sugihira N, Tohyama C, Murakami M, Saito H, Significance of increase in urinary metallothionein of rats repeatedly exposed to cadmium, *Toxicology* 41(1):1-9, 1986
 162. Mitane Y, Tohyama C, Saito H, The role of metallothionein in the elevated excretion of copper in urine from people living in a cadmium-polluted area, *Fundam Appl Toxicol* 6(2):285-91, 1986
 163. Shaikh ZA, Tohyama C, Urinary metallothionein as an indicator of cadmium body burden and of

- cadmium-induced nephrotoxicity, *Environ Health Perspect* 54:171-4, 1984
164. Mitsumori F, Tohyama C, Proton nuclear magnetic resonance studies of mammalian metallothioneins, *J Biochem* 96(2):533-43, 1984
 165. Murakami M, Tohyama C, Sano K, Kawamura R, Kubota K, Autoradiographical studies on the localization of metallothionein in proximal tubular cells of the rat kidney, *Arch Toxicol* 53(3):185-92, 1983
 166. Lee YH, Shaikh ZA, Tohyama C, Urinary metallothionein and tissue metal levels of rats injected with cadmium, mercury, lead, copper or zinc, *Toxicology* 27(3-4):337-45, 1983
 167. Tohyama C, Shaikh ZA, Nogawa K, Kobayashi E, Honda R, Urinary metallothionein as a new index of renal dysfunction in "Itai-Itai" disease patients and other Japanese women environmentally exposed to cadmium, *Arch Toxicol* 50(2):159-66, 1982
 168. Tohyama C, Shaikh ZA, Nogawa K, Kobayashi E, Honda R, Elevated urinary excretion of metallothionein due to environmental cadmium exposure, *Toxicology* 20(4):289-97, 1981
 169. Tohyama C, Shaikh ZA, Ellis KJ, Cohn SH, Metallothionein excretion in urine upon cadmium exposure: its relationship with liver and kidney cadmium, *Toxicology* 22(3):181-91, 1981
 170. Tohyama C, Shaikh ZA, Metallothionein in plasma and urine of cadmium-exposed rats determined by a single-antibody radioimmunoassay, *Fundam Appl Toxicol* 1(1):1-7, 1981
 171. Tohyama C, Shaikh ZA, Cross-reactivity of metallothioneins from different origins with rabbit anti-rat hepatic metallothionein antibody, *Biochem Biophys Res Commun* 84(4):907-13, 1978
 172. Iijima S, Tohyama C, Lu C, Matsumoto N, Placental transfer and body distribution of methylmercury and selenium in pregnant mice, *Toxicol Appl Pharmacol* 44(1):143-6, 1978
 173. Ichiyama A, Hasegawa H, Tohyama C, Dohmoto C, Kataoka T, Some properties of bovine pineal tryptophan hydroxylase, *Adv Exp Med Biol* 74:103-17, 1976
 174. 遠山千春, 塩化メチル水銀および亜セレン酸ナトリウム投与マウスにおける水銀とセレンの生体内分布, *産業医学* 17(6):491-497, 1975 (in Japanese)
 175. Nukiwa T, Tohyama C, Okita C, Kataoka T, Ichiyama A, Purification and some properties of bovine pineal tryptophan 5-monooxygenase, *Biochem Biophys Res Commun* 60(3):1029-35, 1974
 176. Suzuki T, Miyama T, Tohyama C, The chemical form and bodily distribution of mercury in marine fish, *Bull Environ Contam Toxicol* 10(6):347-55, 1973

Reviews (English)

1. E Benner S, Endo T, Kakeyama M, Tohyama C. Environmental insults in early life and submissiveness later in life in mouse models. *Front Neurosci*. 2015 Mar 31;9:91. doi: 10.3389/fnins.2015.00091. eCollection 2015. PMID: 258738515.
2. van den Berg M, Denison MS, Birnbaum LS, Devito MJ, Fiedler H, Falandysz J, Rose M, Schrenk D, Safe S, Tohyama C, Tritscher A, Tysklind M, Peterson RE, Polybrominated dibenzo-p-dioxins, dibenzofurans, and biphenyls: inclusion in the toxicity equivalency factor concept for dioxin-like compounds, *Toxicol Sci* 133(2):197-208, 2013
3. Dourson ML, Gadagbui B, Griffin S, Garabrant DH, Haws LC, Kirman C, Tohyama C, The importance of problem formulations in risk assessment: a case study involving dioxin-contaminated soil, *Regul Toxicol Pharmacol* 66(2):208-16, 2013
4. Yoshioka W, Peterson RE, Tohyama C, Molecular targets that link dioxin exposure to toxicity phenotypes, *J Steroid Biochem Mol Biol* 127(1-2):96-101, 2011
5. Matsumura F, Puga A, Tohyama C, Biological functions of the arylhydrocarbon receptor: beyond induction of cytochrome P450s. Introduction to this special issue, *Biochem Pharmacol* 77(4):473, 2009
6. Ishimura R, Kawakami T, Ohsako S, Tohyama C, Dioxin-induced toxicity on vascular remodeling

- of the placenta, *Biochem Pharmacol* 77(4):660-9, 2009
7. Arnold RG, Carpenter DO, Kirk D, Koh D, Armour MA, Cebrian M, Cifuentes L, Khwaja M, Ling B, Makalinao I, Paz YMC, Peralta G, Prasad R, Singh K, Sly P, Tohyama C, Woodward A, Zheng B, Maiden T, Meeting report: threats to human health and environmental sustainability in the pacific basin, *Environ Health Perspect* 115(12):1770-5, 2007
 8. Van den Berg M, Birnbaum LS, Denison M, De Vito M, Farland W, Feeley M, Fiedler H, Hakansson H, Hanberg A, Haws L, Rose M, Safe S, Schrenk D, Tohyama C, Tritscher A, Tuomisto J, Tysklind M, Walker N, Peterson RE, The 2005 World Health Organization reevaluation of human and Mammalian toxic equivalency factors for dioxins and dioxin-like compounds, *Toxicol Sci* 93(2):223-41, 2006
 9. Ohsako S, Tohyama C, Comparison of study controls, *Environ Health Perspect* 113(9):A582; author reply A582-3, 2005
 10. Kakeyama M, Tohyama C, Developmental neurotoxicity of dioxin and its related compounds, *Ind Health* 41(3):215-30, 2003
 11. Cai L, Satoh M, Tohyama C, Cherian MG, Metallothionein in radiation exposure: its induction and protective role, *Toxicology* 132(2-3):85-98, 1999

Books and Reviews in Japanese are not listed here.