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### **Education**

Ph. D., Pharmaceutical Sciences: **Tohoku University**, Graduate School of Pharmaceutical Sciences (April 1995-March 1998).

M.S., Pharmaceutical Sciences: **Tohoku University**, Graduate School of Pharmaceutical Sciences (April 1993-March 1995).

B.S. Pharmaceutical Sciences: **Tohoku University**, Faculty of Pharmaceutical Sciences. (April 1989-March 1993).

### **Employment**

April 2014-present: **University of Shizuoka**, School of Pharmaceutical Sciences, Professor.

March 2007-March 2014: **Tohoku University**, Graduate School of Pharmaceutical Sciences, Associate Professor

April 2006-February 2007: **Tohoku University**, Graduate School of Pharmaceutical Sciences, Assistant Professor.

April 2002 – March 2006: **University of Shizuoka**, School of Pharmaceutical Sciences, Assistant Professor.

October 2001-March 2002: **University of Shizuoka**, School of Pharmaceutical Sciences, Research Assistant Professor.

April 1998-September 2001: **National Institute of Environmental Health Sciences/National Institutes of Health**, Postdoctoral Fellow.

### **Research Interests**

- Gene regulation of drug-metabolizing enzymes.
- Roles of xenobiotic-responsive nuclear receptors in liver function and toxicity.
- Chemical-induced liver toxicity: the identification of mechanisms and the development of prediction system.

### **Academic Honors**

2011 International Society for the Study of Xenobiotics (ISSX), Asia Pacific New Investigator Award

2009 Japanese Society for the Study of Xenobiotics (JSSX), Award for Young Scientists.

2005 The Pharmaceutical Society of Japan, Tokai-region Award for Young Scientists.

### **List of Publication**

#### **Books (English)**

Receptor-mediated regulation of cytochromes P450. K. Yoshinari, E. Tien, M. Negishi and P. Honkakoski: in *Cytochrome P450: Role in the Metabolism and Toxicity of Drugs and Other Xenobiotics (Issues in Toxicology)*. C. Ioannides (Edt.), Royal Society of Chemistry. pp. 417-448, 2008

#### **Review articles**

Construction of a CYP2E1-template system for prediction of the metabolism on both site and preference order. Y. Yamazoe, K. Ito and K. Yoshinari: ***Drug Metab Rev***, 43: 409-439,

2011.

Crystal structure-based studies of cytosolic sulfotransferase. K. Yoshinari, E. V. Petrotchenko, L. C. Pedersen and M. Negishi: **J Biochem Mol Toxicol**, 15: 67-75, 2001.

Roles of nuclear receptors in the gene expression of drug-metabolizing enzymes under various physiological conditions. K. Yoshinari: **Yakugakuzasshi**, 126: 343-8, 2006.

### Original articles (selected)

Dual roles of nuclear receptor liver X receptor  $\alpha$  (LXR $\alpha$ ) in the CYP3A4 expression in human hepatocytes as a positive and negative regulator. K. Watanabe, K. Sakurai, Y. Tsuchiya, Y. Yamazoe and K. Yoshinari. **Biochem Pharmacol**, 86: 428-36, 2013.

Novel cell-based reporter assay system using epitope-tagged protein for the identification of agonistic ligands of constitutive androstane receptor (CAR). J. Imai, Y. Yamazoe and K. Yoshinari. **Drug Metab Pharmacokinet**, 28: 290-8, 2013.

Xenobiotic-induced hepatocyte proliferation associated with constitutive active/androstane receptor (CAR) or peroxisome proliferator-activated receptor  $\alpha$  (PPAR $\alpha$ ) is enhanced by pregnane X receptor (PXR) activation in mice. R. Shizu, S. Benoki, Y. Numakura, S. Kodama, M. Miyata, Y. Yamazoe and K. Yoshinari. **PLoS One**, 8: e61802, 2013.

Constitutive androstane receptor transactivates the hepatic expression of mouse Dhcr24 and human DHCR24 encoding a cholesterologenic enzyme 24-dehydrocholesterol reductase. K. Yoshinari, H. Ohno, S. Benoki and Y. Yamazoe. **Toxicol Lett**, 208: 185-91, 2012.

Transactivation of ABCG2 through a novel cis-element in the distal promoter by constitutive androstane receptor but not pregnane X receptor in human hepatocytes. S. Benoki, K. Yoshinari, T. Chikada, J. Imai and Y. Yamazoe: **Arch Biochem Biophys**, 517: 123-30, 2012.

Liver X receptor alpha bidirectionally transactivates human CYP1A1 and CYP1A2 through two cis-elements common to both genes. K. Araki, K. Watanabe, Y. Yamazoe and K. Yoshinari: **Toxicol Lett**, 215: 16-24, 2012.

Activated sterol regulatory element-binding protein-2 suppresses hepatocyte nuclear factor-4-mediated Cyp3a11 expression in mouse liver. S. Inoue, K. Yoshinari, M. Sugawara and Y. Yamazoe: **Mol Pharmacol**, 79: 148-56, 2011.

Clioquinol is sulfated by human jejunal cytosol and SULT1A3, a human-specific dopamine sulfotransferase. K. Yoshinari, M. Sakamoto, L. Senggunprai and Y. Yamazoe: **Toxicol Lett**, 206: 229-33, 2011.

Constitutive androstane receptor transcriptionally activates human CYP1A1 and CYP1A2 genes through a common regulatory element in the 5'-flanking region. K. Yoshinari, N. Yoda, T. Toriyabe and Y. Yamazoe: **Biochem Pharmacol**, 79: 261-9, 2010.

Simultaneous expression of plural forms of human cytochrome P450 at desired ratios in HepG2 cells: adenovirus-mediated tool for cytochrome P450 reconstitution. K. Aoyama, K. Yoshinari, H. J. Kim, K. Nagata and Y. Yamazoe: **Drug Metab Pharmacokinet**, 24: 209-17, 2009.

Inhibitory effects of kynurenic acid, a tryptophan metabolite, and its derivatives on cytosolic sulfotransferases. L. Senggunprai, K. Yoshinari and Y. Yamazoe: **Biochem J**, 422: 455-62, 2009.

Selective role of sulfotransferase 2A1 (SULT2A1) in the N-sulfoconjugation of quinolone drugs in humans. L. Senggunprai, K. Yoshinari and Y. Yamazoe: **Drug Metab Dispos**, 37: 1711-7, 2009.

Involvement of Vitamin D receptor in the intestinal induction of human ABCB1. S. Tachibana, K. Yoshinari, T. Chikada, T. Toriyabe, K. Nagata and Y. Yamazoe: **Drug Metab Dispos**, 37: 1604-10, 2009.

Unveiling a new essential cis element for the transactivation of the CYP3A4 gene by xenobiotics. T. Toriyabe, K. Nagata, T. Takada, Y. Aratsu, T. Matsubara, K. Yoshinari and Y. Yamazoe: **Mol Pharmacol**, 75: 677-84, 2009.

Omeprazole transactivates human CYP1A1 and CYP1A2 expression through the common regulatory region containing multiple xenobiotic-responsive elements. K. Yoshinari, R. Ueda, K. Kusano, T. Yoshimura, K. Nagata and Y. Yamazoe: **Biochem Pharmacol**, 76:

- 139-45, 2008.
- Involvement of ST1B subfamily of cytosolic sulfotransferase in kynurenine metabolism to form natriuretic xanthurenic acid sulfate. L. Senggunprai, K. Yoshinari, M. Shimada and Y. Yamazoe: **J Pharmacol Exp Ther**, 327: 789-98, 2008.
- Hepatic CYP3A expression is attenuated in obese mice fed a high-fat diet. K. Yoshinari, S. Takagi, T. Yoshimasa, J. Sugatani and M. Miwa: **Pharm Res**, 23: 1188-200, 2006.
- Changes in the expression of cytochromes P450 and nuclear receptors in the liver of genetically diabetic db/db mice. K. Yoshinari, S. Takagi, J. Sugatani and M. Miwa: **Biol Pharm Bull**, 29: 1634-8, 2006.
- Induction of detoxifying enzymes in rodent white adipose tissue by aryl hydrocarbon receptor agonists and antioxidants. K. Yoshinari, N. Okino, T. Sato, J. Sugatani and M. Miwa: **Drug Metab Dispos**, 34: 1081-9, 2006.
- Expression and induction of cytochromes P450 in rat white adipose tissue. K. Yoshinari, T. Sato, N. Okino, J. Sugatani and M. Miwa: **J Pharmacol Exp Ther**, 311: 147-54, 2004.
- Identification of the nuclear receptor CAR:HSP90 complex in mouse liver and recruitment of protein phosphatase 2A in response to phenobarbital. K. Yoshinari, K. Kobayashi, R. Moore, T. Kawamoto and M. Negishi: **FEBS Lett**, 548: 17-20, 2003.
- Role of constitutive androstane receptor in the in vivo induction of Mrp3 and CYP2B1/2 by phenobarbital. H. Xiong, K. Yoshinari, K.L. Brouwer and M. Negishi: **Drug Metab Dispos**, 30: 918-23, 2002.
- Nuclear receptor CAR as a regulatory factor for the sexually dimorphic induction of CYB2B1 gene by phenobarbital in rat livers. K. Yoshinari, T. Sueyoshi, R. Moore and M. Negishi: **Mol Pharmacol**, 59: 278-84, 2001.
- The phenobarbital response enhancer module in the human bilirubin UDP-glucuronosyl-transferase UGT1A1 gene and regulation by the nuclear receptor CAR. J. Sugatani, H. Kojima, A. Ueda, S. Kakizaki, K. Yoshinari, Q. H. Gong, I. S. Owens, M. Negishi and T. Sueyoshi: *Hepatology*, 33: 1232-8, 2001.
- Estrogen activation of the nuclear orphan receptor CAR (constitutive active receptor) in induction of the mouse Cyp2b10 gene. T. Kawamoto, S. Kakizaki, K. Yoshinari and M. Negishi: **Mol Endocrinol**, 14: 1897-905, 2000.
- Molecular cloning, expression, and enzymatic characterization of rabbit hydroxysteroid sulfotransferase AST-RB2 (ST2A8). K. Yoshinari, K. Nagata, T. Shiraga, K. Iwasaki, T. Hata, M. Ogino, R. Ueda, K. Fujita, M. Shimada and Y. Yamazoe: **J Biochem**, 123: 740-6, 1998.
- Molecular characterization of ST1C1-related human sulfotransferase. K. Yoshinari, K. Nagata, M. Shimada and Y. Yamazoe: **Carcinogenesis**, 19: 951-3, 1998.
- Molecular cloning and expression of an amine sulfotransferase cDNA: a new gene family of cytosolic sulfotransferases in mammals. K. Yoshinari, K. Nagata, M. Ogino, K. Fujita, T. Shiraga, K. Iwasaki, T. Hata and Y. Yamazoe: **J Biochem**, 123: 479-86, 1998.