

Current Position:

Professor
Laboratory of Molecular Pharmacotherapeutics,
Faculty of Pharmacy,
Institute of Medical, Pharmaceutical and Health Sciences,
Kanazawa University

Date and Place of Birth:

September 18, 1967, Kanazawa-city, Ishikawa-Pref. Japan

Present Address:

Faculty of Pharmacy,
Institute of Medical, Pharmaceutical and Health Sciences,
Kanazawa University
Kakuma-machi, Kanazawa 920-1192, Japan
[TEL] +81-76-234-4465 [FAX] +81-76-234-4465
[E-mail] ykato@p.kanazawa-u.ac.jp

Education:

University of Tokyo, B.S. 1990 Pharmacy
University of Tokyo, M.S. 1992 Pharmaceutical Chemistry
University of Tokyo, Ph. D. 1998 Pharmaceutical Chemistry

Research and/or Professional Experiences:

1993	Fellowship of the Japan Society for the Promotion of Science for Japanese Junior Scientists
1993-1997	Research Associate Faculty of Pharm. Sci., Univ. of Tokyo
1997-2001	Research Associate Graduate School of Pharm. Sci., Univ. of Tokyo
2001-2002.	Visiting Fellow, Cell Biology and Metabolism Branch, National Institute of Child Health and Human Development, National Institutes of Health, USA
2002-2008	Associate Professor, Faculty of Pharm. Sci., Kanazawa Univ.
2008-present	Professor, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University
2012-2021	Visiting Research Staff, Sugiyama Laboratory, RIKEN
2021-present	Dean, Faculty of Pharmacy, Kanazawa University

Biography:

Dr. Yukio Kato graduated University of Tokyo in 1990 and received Ph.D. degree in 1998. He was appointed Research Associate in University of Tokyo in 1993, Visiting Fellow in National Institutes of Health, USA in 2001, Associate Professor in Kanazawa University in 2002, and Full Professor in Kanazawa University in 2008. He received ISSX (International Society for the Study of Xenobiotics) New Investigator Award in Asia-Pacific region in 2006. His major research interests are transporter-mediated drug disposition, efficacy and toxicity, protein-protein interaction of xenobiotic transporters, and application to natural food and drugs of edible materials. He published 207 original research articles including 6 *Nature* journal series papers, and 20 review articles.

Publications:

- (1) 207 original articles (written in English)
- (2) 20 review articles and 9 book chapters (written in English)
- (3) 45 review articles and/or book chapters (written in Japanese)

Awards:

- September 22, 2000
Banyu Young Scientist Award for Pharmaceutics
- May 26, 2006
ISSX New Investigator Award in Asia-Pacific region
- Nov 29, 2006
JSSX New Investigator Award
- March 21, 2008
The APSTJ (The Academy of Pharmaceutical Science and Technology, Japan) New Investigator Award

Invited Lectures (International):

- 17) Kato Y. Change in transporter-mediated drug disposition in non-injured organs during liver/kidney failure, August 4, 2020, Webinar in Faculty of Pharmacy, Universitas Hasanuddin, Indonesia.
- 16) Kato Y. OCTN1 - a broad substrate specificity and disease-associated transporter. Meet the Experts: Transporter Conference Tokyo 2017, November 28, 2017, Tokyo Marriott Hotel, Japan.
- 15) Kato Y. Organic cation transporter OCTN1 as possible target for lung pathology. Workshop on Drug Transporters in the Lungs, September 22-23, 2016, Trinity College Dublin, Dublin.
- 14) Kato Y., Masuo Y and Nakamichi N. Role of ABC xenobiotic transporters in drug disposition in the skin. In "The Best of the Rest – Drug Transport across Non-traditional Biological Barriers," 2015 AAPS Annual Meeting and Exposition, Orange Country Convention Center, Orlando, October 25-29, 2015
- 13) Kato Y., Masuo Y and Nakamichi N. ABC transporters involved in xenobiotics disposition in the skin. Meet the Experts: Transporter Conference Tokyo 2015, May 13, 2015, Tokyo Marriott Hotel, Japan.
- 12) Kato Y., Nakamichi N and Sugiura T. Toxicological and pathophysiological relevance of xenobiotic transporters in epithelial cells. International Symposium on Epithelial Barrier and Transport 2012, Ritsumeikan University, September 15-16, 2012, Kusatsu, Japan.
- 11) Kato Y., Tsuji A. BioMedical Transporters 2009 Conference, "Membrane transporters and their impact on drug discovery," Seepark Congress Center, Thun, Switzerland, August 9-12, 2009.
- 10) Kato Y., Kubo Y and Tsuji A. Intestinal transporters as possible target for oral drug delivery. GPEN (Globalization of Pharmaceutics Education Network) 2006, October 25-27, 2006, The University of Kansas, USA.
- 9) Kato Y., Kubo Y and Tsuji A. PDZ adaptor proteins as regulatory mechanisms for organic cation/carnitine transporter OCT/OCTN family. The 3rd Korea-Japan Joint Symposium on Drug Delivery and Therapy, April 20-21, 2006, Hoam Faculty

Center of Seoul National University, Korea.

- 8) Kato Y, Kubo Y and Tsuji A. Role of SLC xenobiotic transporters and their regulatory mechanisms PDZ proteins in drug delivery and disposition. 9th European Symposium on Controlled Drug Delivery, April 5-7, 2006, Noordwijk aan Zee, Netherlands.
- 7) Kato Y. Interactions of SLC Xenobiotic Transporters with PDZ-Domain Containing Proteins and their Implications in Drug Disposition 13th North American ISSX/20th JSSX Meeting, The Outrigger Hotel, October 23-27, 2005, Maui, Hawaii.
- 6) Kato Y, Kubo Y and Tsuji A. Protein-protein interaction involved in regulation of function and expression of organic cation/carnitine transporter OCT/OCTN family. 4th International Research Conference: Biomedical Transporters 2005 "Membrane transporters: Bridging basic and applied sciences, " August 14-18, 2005, OLMA Congress Center, St. Gallen, Switzerland.
- 5) Kato Y, Kubo Y and Tsuji A. Regulation of xenobiotic transporters by interaction with PDZ adaptor proteins: Its implications in drug disposition. 5th Retrometabolism Based Drug Design and Targeting Conference, May 8-11, 2005, Hakone Hotel Kowaki-en, Hakone, Japan.
- 4) Kato Y, Suzuki H and Sugiyama Y. Toxicological implications of hepatobiliary transporters. The 9th international congress of toxicology, July 8-12, 2001, Brisbane Convention Centre, Brisbane, Australia.
- 3) Kato Y and Sugiyama Y. Prediction of Transporter-Mediated Drug-Drug Interactions Based on In-Vitro Data Obtained using Isolated Cells and Membrane Vesicles. AAPS Workshop on Drug-Drug and Drug-Food Interactions: Mechanisms, Predictions & Regulatory Implications, December 8-10, 1999, Crystal Gateway Marriott, Arlington, Virginia.
- 2) Kato Y. Kinetic and biochemical analysis of receptor-mediated endocytosis : Influence of receptor up- and down-regulation on the clearance and the pharmacological effects of cytokines. The 3rd International Symposium on Measurement and Kinetics of In vivo Drug Effects, May 27-30, 1998, Leeuwenhorst Congress Centre, Noordwijkerhout, The Netherlands.
- 1) Kato Y and Sugiyama Y. Targeting Delivery of Cytokines by Use of Receptor-Mediated Endocytosis. 8th Japanese-American Conference on Pharmacokinetics and Biopharmaceutics, July 29-30, 1996, Kane Hall, University of Washington, Seattle.

Grants:

2023	Grant-in-Aid for Challenging Research (Pioneering) provided by the Ministry of Education, Culture, Sports, Science and Technology of Japan. (No. 23K18182)
2022	Grant-in-Aid for Scientific Research (B) provided by the Ministry of Education, Culture, Sports, Science and Technology of Japan. (No. 22H02781)
2020	Grant-in-Aid for Challenging Research (Pioneering) provided by the Ministry of Education, Culture, Sports, Science and Technology of Japan. (No. 20K21475)
2018	Grant-in-Aid for Scientific Research (B) provided by the Ministry

of Education, Culture, Sports, Science and Technology of Japan. (No. 18H02584)

2017 Grant-in-Aid for Challenging Research (Pioneering) provided by the Ministry of Education, Culture, Sports, Science and Technology of Japan.(No. 17K19482)

2015 Grant-in-Aid for Challenging Exploratory Research provided by the Ministry of Education, Science and Culture of Japan. (No. 15K15000)

2015 Grant-in-Aid for Scientific Research (B) provided by the Ministry of Education, Science and Culture of Japan. (No. 15H04664)

2014 Hoansha Foundation (3-1-8 Dosho-machi, Chuo-ku, Osaka 541-0045, Japan)

2013 Grant-in-Aid for Challenging Exploratory Research provided by the Ministry of Education, Science and Culture of Japan. (No. 25670011)

2012 Grant-in-Aid for Scientific Research (B) provided by the Ministry of Education, Science and Culture of Japan. (No. 24390040)

2012 A-STEP (Adaptable & Seamless Technology Transfer Program through Target-driven R&D) provided by JST (AS242Z03764Q)

2011 Grant-in-Aid for Challenging Exploratory Research provided by the Ministry of Education, Science and Culture of Japan. (No. 23659019)

2011 Takeda Science Foundation (2-17-85 Juso-hommachi, Yodogawa-ku, Osaka 532-8686, Japan)

2011 The Cosmetology Research Foundation (3-11-8 Hacchobori, Chuo-ku, Tokyo 104-0032, Japan)

2011 Shimabara-kagaku Foundation (2-40-14 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan) Japan Research Foundation for Clinical Pharmacology (1-8 Nihonbashi Koami-machi, Chuo-ku, Tokyo 103-8541, Japan)

2010 Kobayashi Institute for Innovative Cancer Chemotherapy (1-27 Kanda-nishikicho, Chiyoda-ku, Tokyo 101-0054, Japan)

2010 The Kanehara Grant Program (2010) by The Ichiro Kanehara Foundation (1-28-13 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan)

2010 Mochida Memorial Foundation (7-6 Honshiocho, Shinjuku-ku, Tokyo 160-0003, Japan) for Medical and Pharmaceutical Research

2010 Shimadzu Foundation (1 Nishinokyo-Tokudaiji-cho, Nakagyo-ku, Kyoto 604-8445, Japan)

2009 Grant-in-Aid for Challenging Exploratory Research provided by the Ministry of Education, Science and Culture of Japan. (No. 21659006)

2009 Japan Science and Technology Agency (JST) Research Grant

2009 Life Science Foundation of Japan (2-18 Hayabusa-cho, Chiyoda-ku, Tokyo 102-0092, Japan) Research Grant

2009 The Naito Foundation (3-42-6 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan) Research Grant

2009 The Nakatomi Foundation (1-11-1 Marunouchi, Chiyoda-ku, Tokyo 100-6221, Japan) Research Grant

2008 Grant-in-Aid for Scientific Research (B) provided by the Ministry of Education, Science and Culture of Japan. (No. 20390047)

2008 The Sagawa Foundation (14 Yoshida-Kawaramachi, Sakyo-ku, Kyoto 606-8306, Japan) for Promotion of Cancer Research

2006 Grant-in-Aid for Scientific Research (C) provided by the

- Ministry of Education, Science and Culture of Japan.
(No. 18590137)
- 2006 Mochida Memorial Foundation (7-6 Honshiocho, Shinjuku-ku, Tokyo 160-0003, Japan) for Medical and Pharmaceutical Research
- 2006 Suzuken Memorial Foundation (8 Higashi-Katahamachi, Higashi-ku, Nagoya 461-8701, Japan) Research Grant
- 2006 Mochida Memorial Foundation (7-6 Honshiocho, Shinjuku-ku, Tokyo 160-0003, Japan) for Medical and Pharmaceutical Research Grant (2005) by the Research Foundation for Pharmaceutical Sciences (2-12-15 Shibuya, Shibuya-ku, Tokyo 150-0002, Japan)
- 2004 Grant-in-Aid for Scientific Research (C) provided by the Ministry of Education, Science and Culture of Japan. (No. 16590108)
- 2004 Grant-in-Aid for Scientific Research on Priority Area "Membrane Interface" provided by the Ministry of Education, Science and Culture of Japan. (No. 16048210)
- 2004 Grant-in-Aid for Scientific Research on Priority Area "Membrane Traffic" provided by the Ministry of Education, Science and Culture of Japan. (No. 16044217)
- 2004 Grant-in-Aid for Scientific Research on Priority Area "Diagnosis and treatment of cancer" provided by the Ministry of Education, Science and Culture of Japan. (No. 16023227)
- 2004 The Inamori Grant Program (2004) by The INAMORI foundation (88 Kankoboko-cho, Shijo-dori Muromachi Higashi-iru, Shimogyo-ku, Kyoto 600-8009, Japan)
- 2004 The Kanehara Grant Program (2004) by The Ichiro Kanehara Foundation (5-29-12 Hongo, Bunkyo-ku, Tokyo 113-0033, Japan)
- 2004 Uehara Memorial Foundation Research Grant (2004) by Uehara Memorial Foundation (3-26-3 Takada, Toshima-ku, Tokyo 171-0033, Japan)
- 1999-2000 Grant-in-Aid for Scientific Research (C) provided by the Ministry of Education, Science and Culture of Japan. (No. 11672138)
- 1999-2000 Grant-in-Aid for Scientific Research on Priority Area (A) "Molecular Synchronization for Design of New Materials System" provided by the Ministry of Education, Science and Culture of Japan. (No. 11167214)
- 1997-98 Grant-in-Aid for Scientific Research provided by the Ministry of Education, Science and Culture of Japan. (No. 09771941)
- 1997 Mochida Memorial Foundation (7-6 Motoshiomachi, Shinjuku-ku, Tokyo 160-0003, Japan) for Medical and Pharmaceutical Research
- 1996 Grant-in-Aid for Scientific Research provided by the Ministry of Education, Science and Culture of Japan. (No. 08772056)
- 1995 Grant-in-Aid for Scientific Research provided by the Ministry of Education, Science and Culture of Japan (No. 07772236)
- 1994 Grant-in-Aid for Scientific Research provided by the Ministry of Education, Science and Culture of Japan (No. 06772206)
- 1993 Grant-in-Aid for Scientific Research provided by the Ministry of Education, Science and Culture of Japan

(No. 3293)

Major Research Interests:

- (1) Transporter-mediated drug disposition, efficacy and toxicity
- (2) Protein-protein interaction and functional regulation of xenobiotic transporters
- (3) Functional analysis and application to natural food and drugs of edible materials

Societies/Membership and Council:

- (1) Member of International Society for the Study of Xenobiotics (ISSX, 2005-present)
- (2) Member of American Association of Pharmaceutical Scientists (AAPS, 2006-present)
- (3) Member (1991-present), Board (2002-present), Director (2014-2017, 2019-present), and President-Elect of The Japanese Society for the Study of Xenobiotics (JSSX)
- (4) Member (1995-present) and Board (2008-present) of The Academy of Pharmaceutical Science and Technology, Japan (APSTJ)
- (5) Member (2000-present) and Board (2006-present) of The Japan Society of Drug Delivery System
- (6) Member of The Pharmaceutical Society of Japan (PSJ, 1990-present)
- (7) Member and Scientific Council of The Japanese Pharmacological Society (JPS, 2009-present)
- (8) Member of ASPET (American Society for Pharmacology and Experimental Therapeutics, 2010-present)

Editorship:

- (1) Associate Editor, Drug Metabolism and Pharmacokinetics (DMPK)
(2009-2013)
- (2) Editorial Board of Drug Metabolism and Pharmacokinetics (2005-2006)
- (3) Editorial Advisory Board of Drug Metabolism and Pharmacokinetics
(2007-present)
- (4) Editorial Advisory Board for *The Journal of Pharmaceutical Sciences*
(2009-present)
- (5) Advisory Board of *Journal of Pharmacological Sciences* (2010-2014)