



## Kyosuke Yamanishi

Basic Life Research Scientist, Psych/General Psychiatry and Psychology (Adult)

### Bio

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#### HONORS AND AWARDS

- JSNP Excellent Presentation Award for CINP 2022, The Japanese Society of Neuropsychopharmacology (2022)
- Best Presentation Award, Japanese Society of Psychiatry and Neurology (2018)
- Best Presentation Award, Japanese Society of Psychiatry and Neurology (2017)

#### EDUCATION AND CERTIFICATIONS

- PhD, Hyogo Medical University , Psychiatry (2015)
- MD, Hyogo Medical University , School of Medicine (2009)

### Publications

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#### PUBLICATIONS

- **IL-18 primes T cells with an antigen-inexperienced memory phenotype for proliferation and differentiation into effector cells through Notch signaling.** *Journal of leukocyte biology*  
Li, W., Jin, D., Takai, S., Inoue, N., Yamanishi, K., Tanaka, Y., Okamura, H.  
2024; 117 (1)
- **LPS-induced delirium-like behavior and microglial activation in mice correlate with bispectral electroencephalography (BSEEG).** *The journals of gerontology. Series A, Biological sciences and medical sciences*  
Nishiguchi, T., Yamanishi, K., Gorantla, N., Shimura, A., Seki, T., Ishii, T., Aoyama, B., Malicoat, J. R., Phuong, N. J., Dye, N. J., Yamanashi, T., Iwata, M., Shinozaki, et al  
2024
- **Discovery of novel protective agents for infection-related delirium through bispectral electroencephalography.** *Translational psychiatry*  
Nishiguchi, T., Yamanishi, K., Patel, S., Malicoat, J. R., Phuong, N. J., Seki, T., Ishii, T., Aoyama, B., Shimura, A., Gorantla, N., Yamanashi, T., Iwata, M., Pieper, et al  
2024; 14 (1): 413
- **The Genome-wide DNA methylation changes in gastrointestinal surgery patients with and without postoperative delirium: Evidence of immune process in its pathophysiology.** *Journal of psychiatric research*  
Nishizawa, Y., Yamanashi, T., Nishiguchi, T., Kajitani, N., Miura, A., Matsuo, R., Tanio, A., Yamamoto, M., Sakamoto, T., Fujiwara, Y., Thompson, K., Malicoat, J., Yamanishi, et al  
2024; 177: 249-255
- **A web-based delirium detection application using bispectral electroencephalography (BSEEG).** *General hospital psychiatry*  
Shimura, A., Seki, T., Nishiguchi, T., Yamanishi, K., Ishii, T., Aoyama, B., Nguyen, H. D., Gorantla, N., Inoue, T., Shinozaki, G.  
2024
- **Epigenetic signals associated with delirium replicated across four independent cohorts.** *Translational psychiatry*

- Nishizawa, Y., Thompson, K. C., Yamanashi, T., Wahba, N. E., Saito, T., Marra, P. S., Nagao, T., Nishiguchi, T., Shibata, K., Yamanishi, K., Hughes, C. G., Pandharipande, P., Cho, et al  
2024; 14 (1): 275
- **The bispectral electroencephalography (BSEEG) method quantifies post-operative delirium-like states in young and aged male mice after head mount implantation surgery.** *The journals of gerontology. Series A, Biological sciences and medical sciences*  
Nishiguchi, T., Shibata, K., Yamanishi, K., Dittrich, M. N., Islam, N. Y., Patel, S., Phuong, N. J., Marra, P. S., Malicoat, J. R., Seki, T., Nishizawa, Y., Yamanashi, T., Iwata, et al  
2024
  - **Large-scale animal model study uncovers altered brain pH and lactate levels as a transdiagnostic endophenotype of neuropsychiatric disorders involving cognitive impairment.** *eLife*  
Hagihara, H., Shoji, H., Hattori, S., Sala, G., Takamiya, Y., Tanaka, M., Ihara, M., Shibutani, M., Hatada, I., Hori, K., Hoshino, M., Nakao, A., Mori, et al  
2024; 12
  - **Genome-wide DNA methylation analysis in female veterans with military sexual trauma and comorbid PTSD/MDD.** *Journal of affective disorders*  
Marra, P., Seki, T., Nishizawa, Y., Chang, G., Yamanishi, K., Nishiguchi, T., Shibata, K., Braun, P., Shinozaki, G.  
2024
  - **A prospective investigation of impacts of comorbid attention deficit hyperactivity disorder (ADHD) on clinical features and long-term treatment response in adult patients with obsessive-compulsive disorder (OCD).** *Comprehensive psychiatry*  
Miyachi, M., Matsuura, N., Mukai, K., Hashimoto, T., Ogino, S., Yamanishi, K., Yamada, H., Hayashida, K., Matsunaga, H.  
2023; 125: 152401
  - **NSAIDs use history: impact on the genome-wide DNA methylation profile and possible mechanisms of action.** *Clinical and experimental medicine*  
Marra, P. S., Nishizawa, Y., Yamanashi, T., Sullivan, E. J., Comp, K. R., Crutchley, K. J., Wahba, N. E., Shibata, K., Nishiguchi, T., Yamanishi, K., Noiseux, N. O., Karam, M. D., Shinozaki, et al  
2023
  - **Elevated levels of interleukin-18 are associated with several indices of general and visceral adiposity and insulin resistance in women with polycystic ovary syndrome.** *Archives of endocrinology and metabolism*  
Kabakchieva, P., Gateva, A., Velikova, T., Georgiev, T., Yamanishi, K., Okamura, H., Kamenov, Z.  
2022; 66 (1): 3-11
  - **Exploring Molecular Mechanisms Involved in the Development of the Depression-Like Phenotype in Interleukin-18-Deficient Mice.** *BioMed research international*  
Yamanishi, K., Miyachi, M., Mukai, K., Hashimoto, T., Uwa, N., Seino, H., Li, W., Gamachi, N., Hata, M., Kuwahara-Otani, S., Maeda, S., Watanabe, Y., Yamanishi, et al  
2021; 2021: 9975865
  - **Evaluation of hemodynamic changes using near-infrared spectroscopy in patients with tic-related obsessive-compulsive disorder.** *Psychiatry and clinical neurosciences*  
Mukai, K., Matsuura, N., Miyachi, M., Hashimoto, T., Yamanishi, K., Maebayashi, K., Hayashida, K., Matsunaga, H.  
2021; 75 (6): 191-199
  - **Acute impact of COVID-19 pandemic on phenomenological features in fully or partially remitted patients with obsessive-compulsive disorder.** *Psychiatry and clinical neurosciences*  
Matsunaga, H., Mukai, K., Yamanishi, K.  
2020; 74 (10): 565-566
  - **Analysis of genes linked to depressive-like behaviors in interleukin-18-deficient mice: Gene expression profiles in the brain.** *Biomedical reports*  
Yamanishi, K., Hashimoto, T., Miyachi, M., Mukai, K., Ikubo, K., Uwa, N., Watanabe, Y., Ikawa, T., Okuzaki, D., Okamura, H., Yamanishi, H., Matsunaga, H.  
2020; 12 (1): 3-10
  - **Impaired function of aorta and perivascular adipose tissue in IL-18-deficient mice.** *American journal of physiology. Heart and circulatory physiology*  
Li, W., Jin, D., Takai, S., Hayakawa, T., Ogata, J., Yamanishi, K., Yamanishi, H., Okamura, H.

2019; 317 (5): H1142-H1156

- **A new approach to identifying hypertension-associated genes in the mesenteric artery of spontaneously hypertensive rats and stroke-prone spontaneously hypertensive rats.** *Journal of hypertension*  
Ikawa, T., Watanabe, Y., Okuzaki, D., Goto, N., Okamura, N., Yamanishi, K., Higashino, T., Yamanishi, H., Okamura, H., Higashino, H.  
2019; 37 (8): 1644-1656
- **Interleukin-18-deficient mice develop hippocampal abnormalities related to possible depressive-like behaviors.** *Neuroscience*  
Yamanishi, K., Doe, N., Mukai, K., Ikubo, K., Hashimoto, T., Uwa, N., Sumida, M., El-Darawish, Y., Gamachi, N., Li, W., Kuwahara-Otani, S., Maeda, S., Watanabe, et al  
2019; 408: 147-160
- **Deficiency in interleukin-18 promotes differentiation of brown adipose tissue resulting in fat accumulation despite dyslipidemia.** *Journal of translational medicine*  
Yamanishi, K., Maeda, S., Kuwahara-Otani, S., Hashimoto, T., Ikubo, K., Mukai, K., Nakasho, K., Gamachi, N., El-Darawish, Y., Li, W., Okuzaki, D., Watanabe, Y., Yamanishi, et al  
2018; 16 (1): 314
- **Frontline Science: IL-18 primes murine NK cells for proliferation by promoting protein synthesis, survival, and autophagy.** *Journal of leukocyte biology*  
El-Darawish, Y., Li, W., Yamanishi, K., Pencheva, M., Oka, N., Yamanishi, H., Matsuyama, T., Tanaka, Y., Minato, N., Okamura, H.  
2018; 104 (2): 253-264
- **Ten-year follow-up study of Japanese patients with obsessive-compulsive disorder.** *Psychiatry and clinical neurosciences*  
Nakajima, A., Matsuura, N., Mukai, K., Yamanishi, K., Yamada, H., Maebayashi, K., Hayashida, K., Matsunaga, H.  
2018; 72 (7): 502-512
- **Physiological and molecular effects of interleukin-18 administration on the mouse kidney.** *Journal of translational medicine*  
Yamanishi, K., Mukai, K., Hashimoto, T., Ikubo, K., Nakasho, K., El-Darawish, Y., Li, W., Okuzaki, D., Watanabe, Y., Hayakawa, T., Nojima, H., Yamanishi, H., Okamura, et al  
2018; 16 (1): 51
- **Molecular analysis of the mouse brain exposed to chronic mild stress: The influence of hepatocyte nuclear factor 4 $\alpha$  on physiological homeostasis.** *Molecular medicine reports*  
Ikubo, K., Yamanishi, K., Doe, N., Hashimoto, T., Sumida, M., Watanabe, Y., El-Darawish, Y., Li, W., Okamura, H., Yamanishi, H., Matsunaga, H.  
2017; 16 (1): 301-309
- **Interleukin-18 and its receptor are expressed in gonadotropin-releasing hormone neurons of mouse and rat forebrain.** *Neuroscience letters*  
Kuwahara-Otani, S., Maeda, S., Kobayashi, K., Minato, Y., Tanaka, K., Yamanishi, K., Hata, M., Li, W., Hayakawa, T., Noguchi, K., Okamura, H., Yagi, H.  
2017; 650: 33-37
- **Fine structure of interleukin 18 (IL-18) receptor-immunoreactive neurons in the retrosplenial cortex and its changes in IL18 knockout mice.** *Journal of chemical neuroanatomy*  
Hayakawa, T., Hata, M., Kuwahara-Otani, S., Yamanishi, K., Yagi, H., Okamura, H.  
2016; 78: 96-101
- **Dysfunction of mitochondria and deformed gap junctions in the heart of IL-18-deficient mice.** *American journal of physiology. Heart and circulatory physiology*  
Li, W., Jin, D., Hata, M., Takai, S., Yamanishi, K., Shen, W., El-Darawish, Y., Yamanishi, H., Okamura, H.  
2016; 311 (2): H313-25
- **Interleukin-18-deficient mice develop dyslipidemia resulting in nonalcoholic fatty liver disease and steatohepatitis.** *Translational research : the journal of laboratory and clinical medicine*  
Yamanishi, K., Maeda, S., Kuwahara-Otani, S., Watanabe, Y., Yoshida, M., Ikubo, K., Okuzaki, D., El-Darawish, Y., Li, W., Nakasho, K., Nojima, H., Yamanishi, H., Hayakawa, et al  
2016; 173: 101-114.e7
- **Augmentation of Immune Checkpoint Cancer Immunotherapy with IL18.** *Clinical cancer research : an official journal of the American Association for Cancer Research*  
Ma, Z., Li, W., Yoshiya, S., Xu, Y., Hata, M., El-Darawish, Y., Markova, T., Yamanishi, K., Yamanishi, H., Tahara, H., Tanaka, Y., Okamura, H.  
2016; 22 (12): 2969-80

- **Genetic analysis of genes causing hypertension and stroke in spontaneously hypertensive rats: Gene expression profiles in the kidneys.** *International journal of molecular medicine*  
Watanabe, Y., Yoshida, M., Yamanishi, K., Yamamoto, H., Okuzaki, D., Nojima, H., Yasunaga, T., Okamura, H., Matsunaga, H., Yamanishi, H.  
2015; 36 (3): 712-24
- **Clinically related or predictive factors and impacts on long-term treatment outcomes of involvement behaviors in patients with obsessive-compulsive disorder.** *Comprehensive psychiatry*  
Yanagisawa, Y., Matsuura, N., Mukai, K., Nakajima, A., Motoyama, M., Yamanishi, K., Yamada, H., Hayashida, K., Matsunaga, H.  
2015; 60: 105-13
- **Hepatocyte nuclear factor 4 alpha is a key factor related to depression and physiological homeostasis in the mouse brain.** *PloS one*  
Yamanishi, K., Doe, N., Sumida, M., Watanabe, Y., Yoshida, M., Yamamoto, H., Xu, Y., Li, W., Yamanishi, H., Okamura, H., Matsunaga, H.  
2015; 10 (3): e0119021
- **The impacts of elevated autism spectrum disorder traits on clinical and psychosocial features and long-term treatment outcome in adult patients with obsessive-compulsive disorder.** *Comprehensive psychiatry*  
Mito, H., Matsuura, N., Mukai, K., Yanagisawa, Y., Nakajima, A., Motoyama, M., Arikawa, A., Yamanishi, K., Matsunaga, H.  
2014; 55 (7): 1526-33
- **Chymase inhibition improves vascular dysfunction and survival in stroke-prone spontaneously hypertensive rats.** *Journal of hypertension*  
Takai, S., Jin, D., Chen, H., Li, W., Yamamoto, H., Yamanishi, K., Miyazaki, M., Higashino, H., Yamanishi, H., Okamura, H.  
2014; 32 (8): 1637-48; discussion 1649
- **Analysis of genes causing hypertension and stroke in spontaneously hypertensive rats: gene expression profiles in the brain.** *International journal of molecular medicine*  
Yoshida, M., Watanabe, Y., Yamanishi, K., Yamashita, A., Yamamoto, H., Okuzaki, D., Shimada, K., Nojima, H., Yasunaga, T., Okamura, H., Matsunaga, H., Yamanishi, H.  
2014; 33 (4): 887-96
- **Regulation of development of CD56 bright CD11c + NK-like cells with helper function by IL-18.** *PloS one*  
Li, W., Okuda, A., Yamamoto, H., Yamanishi, K., Terada, N., Yamanishi, H., Tanaka, Y., Okamura, H.  
2013; 8 (12): e82586
- **Genetic analysis of genes causing hypertension and stroke in spontaneously hypertensive rats.** *International journal of molecular medicine*  
Yamamoto, H., Okuzaki, D., Yamanishi, K., Xu, Y., Watanabe, Y., Yoshida, M., Yamashita, A., Goto, N., Nishiguchi, S., Shimada, K., Nojima, H., Yasunaga, T., Okamura, et al  
2013; 31 (5): 1057-65