

Curriculum Vitae

1. General information

Name	Motohiro Nishida		
Affiliation	Okazaki Institute for Integrative Bioscience (National Institute for Physiological Sciences), National Institutes of Natural Sciences		
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2. Educational background & professional experience

Year	Affiliation	Position
2001.3.	University of Tokyo, Graduate School of Pharmaceutical Sciences	Ph.D.
2001.4.	JSPS Research Fellow	Postdoc
2001.5. - 2003.9.	National Institute for Physiological Sciences, Okazaki National Institutes	Assistant Professor
2003.10. – 2013.7.	Kyushu University, Graduate School of Pharmaceutical Sciences	Associate Professor
2013.8. - present	Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences	Professor
2015.9. - present	Kyushu University, Graduate School of Pharmaceutical Sciences	Concurrent Professor

3. Research interests

1. Cardiovascular remodeling, 2. Redox biology, 3. calcium signaling, 4. drug repositioning

4. List of major publications (15 of 80 in total)

- Akaike T, Ida T, Wei F-Y, **Nishida M**, Kumagai Y, Alam MM, Ihara H, Sawa T, Matsunaga T, Kasamatsu S, Nishimura A, Morita M, Tomizawa K, Nishimura A, Watanabe S, Inaba K, Shima H, Tanuma N, Jung M, Fujii S, Watanabe Y, Ohmuraya M, Nagy P, Feelisch M, Fukuto JM, Motohashi H. Cysteinyl-tRNA synthetase governs cysteine polysulfidation and mitochondrial bioenergetics. *Nature Commun.* 8(1):1177 (2017).
- Shimauchi T, Numaga-Tomita T, Ito T, Nishimura A, Matsukane R, Oda S, Hoka S, Ide T, Koitabashi N, Uchida K, Sumimoto H, Mori Y, **Nishida M**. TRPC3-Nox2 complex mediates doxorubicin-induced myocardial atrophy. *JCI Insight.* Aug 3;2(15). pii: 93358 (2017).
- Numaga-Tomita T., Kitajima N., Kuroda T., Nishimura A., Miyano K., Yasuda S., Kuwahara K., Sato Y., Ide T., Birnbaumer L., Sumimoto H., Mori Y. and **Nishida M**. TRPC3-GEF-H1 axis mediates pressure overload-induced cardiac fibrosis. *Sci. Rep.* 6, 39383 (2016).
- Kitajima N., Numaga-Tomita T., Watanabe M., Kuroda T., Nishimura A., Miyano K., Yasuda S., Kuwahara K., Sato Y., Ide T., Birnbaumer L., Sumimoto H., Mori Y. and **Nishida M**. TRPC3 positively regulates reactive oxygen species driving maladaptive cardiac remodeling. *Sci. Rep.* 6, 37001 (2016).
- Nishimura A, Sunggip C, Tozaki-Saitoh H, Shimauchi T, Numaga-Tomita T, Hirano K, Ide T, Boeynaems J-M, Kurose H, Tsuda M, Robaye B, Inoue K and **Nishida M**. The purinergic P2Y₆ receptor heterodimerizes with the angiotensin AT1 receptor to promote angiotensin II-induced hypertension. *Science Signal.* 9(411), ra7 (2016).
- Nakaya M, Tajima M, Kosako H, Nakaya T, Hashimoto A, Watari K, Nishihara H, Ohba M, Komiya

- S, Tani N, **Nishida M**, Taniguchi H, Sato Y, Matsumoto M, Tsuda M, Kuroda M, Inoue K and Kurose H. GRK6 deficiency in mice causes autoimmune disease due to impaired apoptotic cell clearance. *Nature Commun.* 4, 1532 (2013).
7. **Nishida M**, Sawa T, Kitajima N, Ono K, Inoue H, Ihara H, Motohashi H, Yamamoto M, Suematsu M, Kurose H, van der Vliet A, Freeman BA, Shibata T, Uchida K, Kumagai Y and Akaike T. Hydrogen sulfide anion regulates redox signaling via electrophile sulfhydration. *Nature Chem. Biol.* 8: 714-724 (2012).
 8. **Nishida M**, Ogushi M, Suda R, Toyotaka M, Saiki S, Kitajima N, Nakaya M, Kim K-M, Ide T, Sato Y, Inoue K and Kurose H. Heterologous down-regulation of angiotensin type1 receptors by purinergic P2Y₂ receptor stimulation through S-nitrosylation of NF- κ B. *Proc. Natl. Acad. Sci. USA.* 108: 6662-6627 (2011).
 9. Kiyonaka S, Kato K, **Nishida M**, Mio K, Numaga T, Sawaguchi Y, Yoshida T, Wakamori M, Mori E, Numata T, Ishii M, Takemoto H, Ojida A, Watanabe K, Uemura A, Kurose H, Morii T, Kobayashi T, Sato Y, Sato C, Hamachi I and Mori Y. Selective and direct inhibition of TRPC3 channels underlies biological activities of a pyrazole compound. *Proc. Natl. Acad. Sci. USA.* 106: 5400-5405 (2009).
 10. **Nishida M**, Sato Y, Uemura A, Narita Y, Tozaki-Saitoh H, Nakaya M, Ide T, Suzuki K, Inoue K, Nagao T and Kurose H. P2Y₆ Receptor-G $\alpha_{12/13}$ signaling in cardiomyocytes triggers pressure overload-induced cardiac fibrosis. *EMBO J.* 27: 3104-3115 (2008).
 11. Onohara N, **Nishida M**, Inoue R, Kobayashi H, Sumimoto H, Sato Y, Mori Y, Nagao T and Kurose H. TRPC3 and TRPC6 are essential for angiotensin II-induced cardiac hypertrophy. *EMBO J.* 25, 5305-5316 (2006).
 12. **Nishida M**, Sugimoto K, Hara Y, Mori E, Morii T, Kurosaki T and Mori Y. Amplification of receptor signalling by Ca²⁺ entry-mediated translocation and activation of PLC γ 2 in B lymphocytes. *EMBO J.* 22, 4677-4688 (2003).
 13. Mori Y, Wakamori M, Miyakawa T, Hermosura M, Hara Y, **Nishida M**, Hirose K, Mizushima A, Okada T, Kurosaki M, Mori E, Gotoh K, Fleig A, Penner R, Iino M and Kurosaki T. TRP1 regulates capacitative Ca²⁺ entry and Ca²⁺ release from endoplasmic reticulum in B lymphocytes. *J. Exp. Med.* 195, 673-681 (2002).
 14. Hara Y, Wakamori M, Ishii M, Maeno E, **Nishida M**, Yoshida T, Yamada H, Shimizu S, Mori E, Kudoh J, Shimizu N, Kurose H, Okada Y, Imoto K and Mori Y. LTRPC2 Ca²⁺-permeable channel activated by changes in redox status confers susceptibility to cell death. *Mol. Cell* 9, 163-173 (2002).
 15. **Nishida M**, Maruyama Y, Tanaka R, Kontani K, Nagao T and Kurose H. G α_i and G α_o are target proteins of reactive oxygen species. *Nature* 408, 492-495 (2000).